



BOROUGH OF BATLEY.

ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH,
TOGETHER WITH THE
REPORT ON THE MEDICAL INSPECTION
OF SCHOOL CHILDREN,

BY

G. H. PEARCE,

Medical Officer of Health.

Medical Officer to the Education Committee.

BATLEY :

J. S. NEWSOME, CENTRAL PRINTING WORKS, COMMERCIAL STREET.

BOROUGH OF BATLEY.

1910.

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Chairman - Alderman G. HIRST.

Vice-Chairman - Councillor B. TURNER.

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Miss MARGARET GRACE AUTY

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G. R. H. DANBY, M.A. (Oxon)., *Secretary and Director.*

Officials of the Health Department.

*Chief Inspector of Nuisances and Inspector under Food and
Drugs Act :*

JOSEPH LINDLEY (Cert. Royal San. Inst.)

Assistant Inspector of Nuisances :

GEORGE MILNER.

Health Visitor :

MARGARET EVELYN HARRIS (Cert. Royal San. Inst. and C.M.B.)

School Nurse :

ALICE MUSTO (Cert. Royal San. Inst., and C.M.B.)

Public Analyst :

F. W. RICHARDSON, F.I.C., F.C.S.

Veterinary Surgeon :

G. WHITEHEAD, M.R.C.V.S., L. & E.

Chief Clerk :

THOMAS BENSON.

Junior Clerk :

HARRY WALKER.

Medical Officer of Health and School Medical Officer :

GEORGE HARPER PEARCE,
L.R.C.P., L.R.C.S. (Edin.), L.R.F.P. and S.G., D.P.H. (Camb.),

*Fellow of the Society of Medical Officers of Health.
Fellow of the Royal Institute of Public Health.
Member of the Royal Sanitary Institute,
&c.*

Extract from Local Government Board Order.

By the Order of the Local Government Board dated March 23rd, 1891, Section 14, it is prescribed that the Medical Officer of Health shall “ prepare an Annual Report, “ to be made to the end of December in each year, comprising a summary of the action taken during the year for “ preventing the spread of disease, and an account of the “ sanitary state of his district generally at the end of the “ year. The report shall also contain an account of the enquiries which he has made as to the conditions injurious “ to health existing in his district, and of proceedings in “ which he has taken part or advised under the Public “ Health Act, 1875, so far as such proceedings relate to “ those conditions ; and also an account of the supervision “ exercised by him or on his advice for sanitary purposes “ over places and houses that Sanitary Authorities have “ power to regulate, with the nature and results of any “ proceedings which may have been so required and taken “ in respect of the same during the year. It shall also record “ the action taken by him on his advice during the year in “ regard to offensive trades and to factories and workshops. “ The report shall also contain tabular statements (on forms “ to be supplied by the Local Government, or to the like “ effect) of the sickness and mortality within the district “ classified according to diseases, ages, and localities.”

Extract from Local Government Board's Memorandum as to Annual Reports of Medical Officers of Health.

“ The report should be chiefly concerned with the conditions affecting the health in the district and with the “ means for improving those conditions. It should contain an “ account, brought up to the end of the year under review, “ of the sanitary circumstances of the district, and of any “ improvement or deterioration in these circumstances which “ may have occurred during the year. Care should be taken “ to report full and explicitly on the influences affecting or “ threatening to affect injuriously the public health in the “ district, and on the action which has been taken, or which “ may still be needed, with a view to combat those influences.

“ It is of special importance that the medical officer of health
“ should record what action has been taken to remedy un-
“ healthy conditions which have been reported by him in
“ previous annual reports, or in special reports presented
“ during the year under review, and that attention should be
“ called afresh, year by year, to such as remain unremedied.

“ The following deserve to be specially borne in mind
“ as subjects concerning which the Board desire to obtain,
“ through annual reports of the medical officer of health, not
“ only definite general information, but record also of par-
“ ticular changes of condition that may have occurred inci-
“ dentally or by action of the local authority :—

“ Physical features and general character of the district
“ and general conditions of its population.

“ The chief occupations of the inhabitants, and the
“ influence of any particular occupation on public
“ health.

“ House accommodation, especially for the working
“ classes ; its adequacy and fitness for habitation.
“ Sufficiency of open space about houses, and clean-
“ liness of surroundings. Supervision over erection
“ of new houses. Action under Parts 1, 2, and 3
“ respectively of the Housing of the Working Classes
“ Act, taken or needed.

“ Water supply of the district or of its several parts :
“ its source (from public service or otherwise),
“ nature (river water, well water, upland water,
“ etc.), sufficiency, wholesomeness, and freedom (by
“ special treatment or otherwise) from risks of pol-
“ lution. In the case of waters liable to have
“ plumbo-solvent action, any facts, either clinical
“ or chemical, whether negative or positive, as to
“ contamination of the water by lead should be
“ stated, and whether administrative action has
“ been taken during the year in respect of such
“ contamination.

- “ Milk supply : character and wholesomeness of milk
 - “ produced within the district or imported ; con-
 - “ dition of dairies, cowsheds, and milkshops ; ad-
 - “ ministration in regard to milk. Tuberculous milk.
- “ Other foods : unsound food and food inspection ; sani-
 - “ tary condition of premises where foods are pre-
 - “ pared, stored, or exposed for sale. Meat inspection,
 - “ disease in meat, and condition of slaughterhouses.
 - “ Action under Sale of Food and Drugs Act, taken
 - “ or needed. Action under section 117 of the Public
 - “ Health Act, 1875. Number of carcasses and parts
 - “ of carcasses condemned for tuberculosis.
- “ Sewerage and drainage : its sufficiency in all parts
 - “ of the district. Condition of the sewers and house
 - “ drains. Method or methods of disposal of sewage.
 - “ Localities where improvements are needed.
- “ Pollution of rivers and streams in the district : the
 - “ sources and nature of such pollution, and any
 - “ action taken to check it.
- “ Excrement disposal : system in vogue ; defects, if any.
- “ Removal and disposal of house refuse, whether by
 - “ public scavenger or occupiers : frequency and
 - “ method.
- “ Nuisances : proceedings for their abatement, any re-
 - “ maining unabated.
- “ Bye-laws as to houses let in lodgings, offensive trades,
 - “ etc. Details as to number of premises coming
 - “ under each set of bye-laws, and action taken.
 - “ Any need of amendment or further bye-laws.
- “ Schools, especially public elementary schools ; sanitary
 - “ condition of, including water supply ; action taken
 - “ in relation to the health of the scholars and for
 - “ preventing the spread of infectious disease.

“ Methods of dealing with infectious diseases ; notifica-
“ tion ; isolation hospital accommodation, its suf-
“ ficiency and efficiency ; disinfection.

“ Methods of control of tuberculosis ; whether any system
“ of notification of cases of pulmonary tuberculosis,
“ compulsory or voluntary, is in operation. Number
“ of cases notified ; what action is taken in respect
“ of known cases and of deaths. Amount of hospital
“ accommodation for cases of pulmonary tuberculosis
“ in infirmaries and elsewhere, for advanced and
“ for earlier cases of the disease.

“ With regard to the preceding points it should be
“ remembered that these reports are for the information of
“ the Board and of the County Council as well as the Council
“ of the District, and that a statement of the local cir-
“ cumstances and a history of local sanitary questions which
“ may seem superfluous for the latter may often be needed
“ by the former bodies.

“ It is expected that each of the preceding points will
“ be mentioned in the annual report, and the extent of action
“ or the absence of action on each of them definitely stated.

“ The report should deal with the extent, distribution,
“ and causes of disease, especially of epidemic and notifiable
“ disease and of tuberculosis, within the district ; and should
“ give an account of any noteworthy outbreaks of disease
“ which may have engaged the attention of the medical
“ officer of health, during the year under review, stating the
“ result of his investigations into their origin and propagation,
“ and the steps taken by him, or on his advice, with a view
“ to check their spread. Attention should be called to cases
“ in which disease is attributed to the consumption of par-
“ ticular articles of food, including shell-fish.”

“The Sanitary Officers (outside London) Order, 1910.”

Issued 13th December, 1910.

Article XIX. alters in some respects the duties of a Medical Officer of Health, as defined by Article 18 of the previous Orders.

An additional duty is imposed on the Medical Officer of Health by Sub-clause (13) of sending to the Board weekly a list of cases of infectious disease notified in his district and a duplicate of the list to the Medical Officer of Health for the County.

Sub-clause (14) sets out in somewhat greater detail than before the Board's requirements as regards the Annual Reports of Medical Officers of Health.

Sub-clause (15) requires the Medical Officer of Health to report to the Board forthwith any case of Plague, Cholera, or Small Pox brought to his knowledge. It will be observed that the last part of Sub-clause (15) of Article 18 of the previous Orders has been omitted, and that it will no longer be necessary for the Medical Officer of Health to report to the Board the cases in which he advises the closure of any school in his district.

By Sub-clause (16) the Medical Officer of Health is to transmit to the Board three copies of each Annual Report and one copy of any special report. The Board take this opportunity of urging that the Council should cause the Annual Report of the Medical Officer of Health to be printed each year, so that a sufficient number of copies may be available for distribution to the Board, the County Council, the Councillors of the district and other persons interested.

The following are the Sub-clauses referred to :—

- (13.) On Monday, the Ninth day of January, One thousand nine hundred and eleven, and on every Monday thereafter, he shall forward to Us by post, at such an hour as in the ordinary course of post will ensure its delivery to Us on the following Tuesday morning a return, in such form as We from time to time require,

as to the number of cases of infectious disease notified to him during the week ended on the preceding Saturday night. He shall also forward at the same time a duplicate of the return to the Medical Officer or Officers of Health of the County or Counties in which the District is situated.

- (14.) He shall as soon as practicable after the Thirty-first day of December in each year make an Annual Report to the Council, up to the end of December, on the sanitary circumstances, the sanitary administration, and the vital statistics of the District.

In addition to any other matters upon which he may consider it desirable to report, his Annual Report shall contain the information indicated in the following paragraphs ; together with such information as We may from time to time require :—

(a) An account of any influences threatening the health of the District, the prevalence of infectious or epidemic diseases therein, and the measures taken for their prevention.

(b) An account of all general and special inquiries made during the year.

(c) An account of the work performed by the Inspector of Nuisances during the year, including the statement supplied in pursuance of Article XX. (16) of this Order.

(d) A statement as to the conditions affecting the wholesomeness of the milk produced or sold in the District.

(e) A statement as to the conditions affecting the wholesomeness of foods for human consumption, other than milk, produced or sold in the District.

(f) A statement as to the sufficiency and quality of the water supply of the District and of its several parts, and in areas where the supply is from waterworks, information as to whether the supply is constant or intermittent.

(g) A statement as to the pollution of rivers or streams in the District.

(h) A statement as to the character and sufficiency of the arrangements for the drainage, sewerage and sewage disposal in all parts of the District.

(i) A statement as to the privy, water-closet, and other closet accommodation in the District, including information as to the approximate number of each type of privy and closet.

(j) A statement as to the character and efficiency of the arrangements for the removal of house-refuse, and the cleansing of earth-closets, privies, ashpits, and cesspools in the District

(k) A statement with regard to the housing accommodation of the District as required by Article V. of the Housing (Inspection of District) Regulations, 1910, and an account of any other action taken by the Council under the Housing, Town Planning, &c. Act, 1909, bearing on the public health.

(l) A statement as to the vital statistics of the District, including a tabular statement, in such form as We may from time to time Direct, of the sickness and mortality within the District.

(15.) He shall forthwith report to Us any case of Plague, Cholera, or Small Pox, or of any serious outbreak of epidemic disease in the District which may be notified to him, or which may otherwise come or be brought to his knowledge.

- (16) He shall transmit to Us three copies of each annual report and one copy of any special report. At the same time that he transmits to Us the copies of his annual report or of any special report, or that he reports to Us a case of Plague, Cholera, or Small Pox, he shall transmit a copy of the report or give the like information to the County Council or County Councils of the County or Counties within which the District is situated.
- (17) In matters not specifically provided for in this Order, he shall observe and execute any instructions issued by Us, and the lawful orders and directions of the Council applicable to his office.
- (18) Whenever We shall make regulations and shall declare the regulations so made to be in force within any area comprising the whole or any part of the District, he shall observe such regulations, so far as the same relate to or concern his office.

Article XX. (16) of this Order referred to above under sub-section (14) (c), is as follows :—

He shall, as soon as practicable after the Thirty-first day of December in each year, furnish the Medical Officer of Health with a tabular statement containing the following particulars :

- (a) the number and nature of inspections made by him during the year ;
- (b) the number of notices served during the year, distinguishing statutory from informal notices ;
- (c) the result of the service of such notices.

PUBLIC HEALTH DEPARTMENT,
BATLEY.

TO THE CHAIRMAN AND MEMBERS OF THE SANITARY COMMITTEE.

GENTLEMEN,

I herewith submit for your information and consideration my report upon the Public Health and Sanitary Condition of the Borough of Batley for the year 1910.

On the first day of April the Borough boundaries were extended, the greater portion of the Urban District of Soothill Upper being taken into Batley.

It is gratifying to be able to state that the general death rate of 14.0 per 1000 is lower than any previously recorded in this town.

The Zymotic death rate of 0.7 is also the lowest ever recorded in the Borough.

The Infantile Mortality Rate is 130 per 1000 births as compared with an average for the last ten years of 175.7. It is slightly higher than the previous year when it was 117, but several circumstances which were entirely unpreventable, and which are referred to in the Report, contributed to this.

The Birth Rate of 22.3 is lower than any previously recorded. The same applies to many other towns and also to England and Wales taken as a whole.

Only 131 notifications of infectious disease were received, and many of the cases notified were of an extremely mild nature. During the greater part of the year, however, Measles and Whooping Cough were epidemic. It is most regrettable that parents are so careless in allowing their children to run about when in an infectious condition from these diseases. Numbers of cases arose through this cause which would never have occurred had proper precautions been taken. A very pleasing fact is that only 10 cases of Typhoid Fever were notified, compared with 24 the previous year, and an average of 55 for the preceding twenty years.

This disease having for many years been endemic in the town owing to the existence of numerous privy middens, is at last being stamped out by the commendable action you have taken in vigorously pursuing a policy of sanitary reform, the end of which will be the abolition of these foci of infection and the safe guarding of the health of the inhabitants.

The year has been a very busy one in the Public Health Department, and much work has been got through.

The enlargement of the Borough and the Housing (Inspection of District) Regulations, 1910, makes it essential that the staff should be increased by the addition of a further Inspector of Nuisances in order that this work may be carried out. You have appointed a sub-committee to consider these matters and I have no doubt such arrangements will be made in due course, as will enable the ever increasing work of this Department to be dealt with in an efficient manner.

The results of the work during the past year have been most satisfactory, and I venture to congratulate you on the steps you have taken to improve the sanitation of the town.

From the 5th to the 9th September, I attended, under your instructions and as your representative, the 28th Annual Congress of the Royal Sanitary Institute, held in Brighton. Delegates from over 200 sanitary authorities in Great Britain and Ireland were present. Papers were read and discussions took place on many subjects particularly applicable to the conditions in Batley. These gatherings are specially helpful in keeping Medical Officers abreast with the times, and much benefit is obtained from discussion and exchange of opinion with other sanitarians. The following subjects were dealt with, The Prevention of Consumption, Sanatorium Treatment, Milk Supply, Meat Inspection, Sewage Disposal, Collection and Disposal of Town's Refuse, Railway Station Sanitation, Railway Travelling and Infectious Disease, Public Cleansing Stations, Fever Hospital Construction, Port Sanitation, The Housing and Town Planning Act, Infant Hygiene, Feeble Minded Children, Nervous Affections of Childhood,

The Tuberculous Child, The X Ray Treatment of Ringworm, The Work of the School Medical Officer, Cleansing and Disinfection of Schools, School Sanitation and Medical Inspection, Open Air Schools, &c.

References are made in the body of this Report under their appropriate headings to the various matters which were considered at the Congress and which appeared to be of especial importance to this town.

An exhibition of the latest appliances of interest to sanitarians in their work was seen and was of great interest. Visits were paid to the Fever Hospital, the Refuse Destructor, the Waterworks, the Sewage Outfall Works, the Consumption Sanatorium, the Public Abattoir, and several other interesting places.

I desire to record my appreciation of your kindness in permitting me to attend this instructive Congress, and I hope the information gained will be of use to the public health of this town.

I also desire to thank the members of the Sanitary Committee for their courtesy to me.

I owe a tribute to my colleagues, the various doctors practising in the town. I have received their assistance and support on a number of occasions, and our official relationship is most cordial. This is absolutely essential, otherwise the work of a Medical Officer of Health cannot attain the most desirable results.

I am much indebted to the members of my staff for their loyalty and assistance. Their work, which has not been light, has been ungrudgingly done and is deserving of recognition.

I beg to remain,

Mr. Chairman and Gentlemen,

Your obedient Servant,

G. H. PEARCE.

3rd March, 1911.

SUMMARY OF STATISTICS, 1910.

Population (estimated to middle of 1910)	...	36,818
Area of Borough (in acres)	... ..	3,222
Density of population (i.e., number of persons per acre)	... ..	11.4
Number of Births	... (Males 412) ... (Females 411)	823
Birth Rate per 1,000 living	... ..	22.3
Number of Deaths	... (Males 249) ... (Females 267)	516
Death Rate per 1,000 living	... ..	14.0
Death-rate from Seven Zymotic Diseases per 1,000 living	... ..	0.7
Phthisis Death Rate per 1,000 living	... ..	0.73
Death Rate per 1,000 from other forms of Tuberculosis		0.32
Death Rate from all forms of Tubercular Diseases, including Phthisis.	... ..	1.05
Death Rate from Diseases of Respiratory Organs, other than Tuberculosis	... ..	2.55
Infantile Mortality, i.e., death rate of children under 1 year per 1,000 births	... ..	130.0

PHYSICAL FEATURES.

Batley is a municipal borough situated in the West Riding of Yorkshire, eight miles south of Leeds and about an equal distance from Bradford.

The London and North Western and Great Northern Railway Companies have a joint station and both companies have a line from Batley to Leeds, the former passing through Morley and the latter running through Woodkirk and Beeston. The Great Northern Railway Company, also gives access to Bradford and provides frequent communication with London, whilst the London and North Western Railway Company affords direct communication with Manchester and Liverpool. The Yorkshire (Woollen District) Electric Tramways, Ltd., provide a service by which it is easy to reach Bradford, Dewsbury, Cleckheaton, Heckmondwike, Birstall, Wakefield, &c.

The parish of Batley includes the hamlets of Brownhill, Carlinghow, Clark Green, Havercroft, Chapel Fold, Healey, Staincliffe, White Lee, Upper Batley, Kilpin Hill, Purlwell, and part of Batley Carr.

On the 1st April, 1910, the greater portion of the Urban District of Soothill Upper was absorbed and became part of the Borough.

The town was constituted a municipal borough by Royal Charter, on the 8th December, 1868, and is governed by a Mayor, Aldermen, and Councillors, and is divided into four wards.

The Borough has a separate commission of the Peace.

Geologically, Batley is situated mostly upon clay, under which is sandstone, through which are reached the various beds of coal. The situation is fairly hilly, most of the town being built upon rising ground, with a valley running through it. The highest point in the Borough is near the old Windmill, Upper Batley, being 475 feet above sea level. The lowest point is near Jack Lane, Bradford Road, Batley Carr, it being 150 feet above sea level. A peculiar feature is the fact

that 450 feet above sea level is the height which is common to most of the landmarks seen from the lower lying parts of the Borough, viz:—Staincliffe, near the Church, 450; Soothill, near the Colliery, 450; Brownhill, near the Vicarage, 450; and Upper Batley Lane, 450.

The occupations of the population are industrial. Many are employed in the numerous mills engaged in the manufacture of heavy woollen goods, whilst others find employment in the rag trade, ironworks, coal mines, &c.

RATEABLE VALUE. The rateable value of the Borough is £142,216. A penny rate realises the sum of £540.

POPULATION.

The Registrar General estimates the population of this Borough at the middle of 1910, at 36,818. The estimate for the previous year was 31,929, and the cause of the apparent disproportion between these two years is owing to the extension of the Borough boundaries, which was accomplished on the 1st April, 1910. The natural increase of the population, meaning thereby the excess of births over deaths, in 1910 was 307. I am of opinion that the figures estimating the population for Batley are rather under than over the estimate, but fortunately during the present year, 1911, the census will be taken and more accurate figures will be available to work the various rates from. For the purposes of this report the Registrar General's figures are taken as the standard.

The following table gives the population of the three wards of the Borough at the census of 1901, together with the estimated population at the middle of 1910. The Soothill Ward is given for 1910 only.

Ward	Population 1901 Census.	Estimated population middle of 1910.
East	11,855	12,566
North	10,853	11,505
West	7,613	8,070
Soothill		4,677
Whole Borough	30,321	36,818

It is essential that if our vital statistics are in any way to remain accurate, more frequent enumerations of the people will need to be taken. It is now generally acknowledged that intervals of ten years between each census are too long, and there are indications that in the future the census may be taken oftener. An interval of only five years to elapse between the taking of each census is looked upon as a convenient space of time, and it would be advantageous were this decided upon.

At the 1901 census, the average of persons per house in Batley was 4.1.

NEW HOUSES. The Borough Engineer kindly informs me that during 1910, certificates were granted for the occupation of 64 houses, which had been erected during the year. They were distributed as follows:—

North Ward	16	East Ward	13
West Ward	33	Soothill Ward	2

DENSITY OF POPULATION. At the census of 1901 the number of persons per acre in Batley was 14.8, the acreage of the Borough being 2,039. The inclusion of a portion of Soothill Upper Urban District has increased the acreage by 1,183, so that the total area of the Municipal Borough is now 3,222 acres. Taking the population at 36,818, the number of persons per acre works out at 11.4. A reference to the table which gives the estimated population of each ward, shows us that the East Ward is the most densely populated with 35.9 persons per acre. The North Ward has 10.5 persons per acre, the West Ward 13.3, and the Soothill Ward, which is the least densely populated, 3.9 per acre. This ward contains a large amount of agricultural land which accounts for the lower figure.

There is a close connection between density of population and mortality figures. This mortality has been found by the late Dr. Farr to increase, not in direct proportion, but as the sixth root. The influence of density does not affect mortality unless there be more than 400 persons per square mile. In Batley, the figures for the whole Borough give a total of 7,313 persons per square mile.

MARRIAGES.

It is usual to make reference to the number of marriages during the year. I have been unable, however, to obtain the figures relating to Batley. Marriage rates afford some index to the national prosperity and also the age at marriage has direct influence on the birth rate. The parents of nearly half the children born are under 30 years of age. In this country the average number of births to a marriage is about 4.5.

BIRTHS

During 1910 the births of 823 children were registered as having occurred within the Borough. The birth rate for the year is 22.3 per 1000 of the population. The birth rate for England and Wales during 1910 was as under:—

England and Wales	...	...	...	24.8
77 Great Towns	...	...	...	25.0
136 Small Towns	...	...	...	23.7
England and Wales, less the 213 towns				25.0

This rate for 1910 is the lowest ever recorded in Batley, the town seeming to suffer in this respect in common with most places elsewhere. The highest birth rate ever recorded in this country was in 1876, the rate being 36.3.

Of the 823 children born, 34 were illegitimate, 19 being boys and 15 girls. No illegitimate birth was registered as having occurred in the Soothill Ward during the year.

The following table shows the number of male and female births, together with the rates, in the four wards of the Borough during 1910.

Ward	Legitimate.			Illegitimate.			Total.			Birth Rate per 1000	Percentage of Illegitimate Births.
	M	F	Total	M	F	Total	M	F	Total		
North	109	112	221	7	7	14	116	119	235	20.4	5.9
East	122	128	250	11	6	17	133	134	267	21.2	6.3
West	99	96	195	1	2	3	100	98	198	24.5	1.5
Soothill	63	60	123	—	—	—	63	60	123	26.3	—

The birth rate was, therefore, highest in the Soothill Ward with a gradual decline to 24.5 in the West Ward, 21.2 in the East Ward, 20.4 in the North Ward, where the rate was the lowest.

A study of the following table shows the steady fall in the birth rate during recent years, both in Batley and in England and Wales.

Year	Batley	England and Wales.	Year	Batley	England and Wales.
1901	29.7	28.5	1906	27.1	27.0
1902	28.4	28.6	1907	23.8	26.2
1903	27.4	28.4	1908	27.0	26.5
1904	26.5	27.9	1909	23.1	25.6
1905	26.4	27.2	1910	22.3	24.8

NOTIFICATION OF BIRTHS. The Notification of Births Act, 1907, makes it compulsory that all births must be notified to the Medical Officer of Health within thirty-six hours of their occurrence.

During 1910, 769 births were thus notified, and in 54 cases no notification was received. Where failure to notify took place, the defaulting parties were written to and their omission pointed out. I have found no case of refusal to notify, the parents always showing that ignorance of the law on their part was the cause. All homes where births occur are forthwith visited by Miss Harris, Health Visitor, an account of whose work is given later.

STILL BIRTHS. Sub. Sec. 5 of the Notification of Births Act, 1907, provides for the notification to the Medical Officer of Health of the birth of any child "which has issued forth from its mother after the expiration of the twenty eighth week of pregnancy, whether alive or dead." A certain number of births occur in which the child has not reached this stage of maturity, and with a view to obtaining further information about these cases I suggested that the Registrar

of the Cemetery should be asked to supply a weekly list of all still born children buried in the Cemetery. This is now done, and since its adoption in October, the Health Department has been made aware of 18 cases of this nature. The Health Visitor calls at the house of the mother with the object of discovering whether there was a reasonable probability of the child having been born at full term instead of prematurely. Appropriate advice is given respecting the management of the mother's health during the latter months of pregnancy in the hope that a similar occurrence shall not take place in the future.

DEATHS.

During 1910 the number of deaths amounted to 516. This includes 44 deaths amongst residents of Batley who died outside the Borough as follows:—

Dewsbury Union Workhouse ...	...	25 deaths.
Oakwell Joint Hospital ...	...	6 do.
Leeds General Infirmary ...	...	5 do.
West Riding Asylum ...	...	4 do.
Dewsbury General Infirmary ...	...	3 do.
152, Liscard Road, Liscard ...	...	1 death.
Total		44

The nett death rate for the year is, therefore, 14.0 per 1000. The death rate for England and Wales for the same period is 13.4 per 1000.

It will be observed that the actual number of deaths in Batley during 1910 was 57 more than in the previous year, but it must be remembered that the boundaries of the town were extended during the year, therefore, giving a larger population and area. I am pleased to say this is the lowest death rate recorded in Batley.

A number of persons who were residents of places outside Batley died during the year in the Borough. Particulars of these deaths were forwarded by me to the Medical Officers of Health for the various districts concerned, in order

that their deaths might be included in the returns of the various areas to which they properly belonged.

The following table gives the estimated population together with the death rate since the year 1890.

Year	Estimated Population	Death rate	Year	Estimated Population	Death rate
1890	28,622	20.4	1901	30,321	20.1
1891	28,752	24.4	1902	30,548	18.2
1892	28,883	21.4	1903	30,734	18.5
1893	29,015	24.0	1904	30,924	22.2
1894	29,147	16.7	1905	31,117	19.0
1895	29,280	19.7	1906	31,314	16.9
1896	29,414	21.6	1907	31,515	19.1
1897	29,547	18.7	1908	31,720	17.8
1898	29,682	18.7	1909	31,929	14.4
1899	29,817	17.9	1910	36,818	14.0
1900	30,198	20.3			

A comparison of the number of deaths in the various wards and the death rate for each ward is given below.

	Male	Female	Total	Death Rate per 1,000 living.
North ...	70	78	148	12.8
East... ..	94	96	190	15.1
West ...	58	61	119	14.7
Soothill ...	27	32	59	12.6
Whole Borough	249	267	516	14.0

The distribution of the deaths in the various wards, together with the number and percentage of the total deaths for each month and each quarter of the year is here given.

	Persons	Males	Females	% of Total Deaths.	WARDS.			
					North	East	West	Soothill
January	53	19	34	10.27	10	29	9	5
February	43	22	21	8.33	15	11	14	3
March	44	22	22	8.53	7	16	15	6
April	36	15	21	6.98	10	14	8	4
May	48	26	22	9.30	12	12	16	8
June	36	20	16	6.98	11	12	7	6
July	26	14	12	5.04	8	12	5	1
August	39	21	18	7.56	15	13	8	3
September	41	22	19	7.94	17	11	8	5
October	54	22	32	10.46	16	21	11	6
November	52	25	27	10.08	15	21	10	6
December	44	21	23	8.53	12	18	8	6
1st Quarter	140	63	77	27.13	32	56	38	14
2nd „	120	61	59	23.26	33	38	31	18
3rd „	106	57	49	20.54	40	36	21	9
4th „	150	68	82	29.07	43	60	29	18
Total 1910 ...	516	249	267	100.0	148	190	119	59

INQUESTS.

40 inquests were held during the twelve months, some being held upon residents and others upon non-residents.

RESIDENTS.

Jury's Verdict.	Age of person.
Puerperal Fever after Childbirth, aggravated by the ignorant neglect of the midwife, Ann Briggs.	30 years.
Found dead from Heart Failure due to excessive drinking.	46 years.
Found dead in bed from Convulsions from Pneumonia.	11 years.
Found dead in her cradle from a sudden attack of false croup.	4 months.
Insufficient inflation of the lungs from Premature Birth.	45 minutes.
Found dead in bed from Debility from Premature Birth and Malnutrition.	5 weeks.
Fell dead from Syncope due to fatty heart.	69 years.
Syncope due to fatty degeneration of the heart	71 „
Fell dead from Sudden Heart Failure due to Aortic Disease.	57 „
Sudden Heart Failure due to Heart Disease aggravated by her pregnancy	41 „
Sudden Cerebral Hæmorrhage.	57 „
Sudden Syncope following Hæmorrhage due to an Aneurism.	51 „
Cerebral Hæmorrhage accelerated by falling down stairs in a fit and exposure while unconscious	75 „
Hypostatic Pneumonia and Heart Failure following fracture of leg by falling down hoist.	71 „
Concussion of the Brain caused by falling down cellar steps while in an Epileptic Fit.	53 „
Spine accidentally fractured by a fall of roof in Soothill Wood Colliery.	38 „
Accidentally killed by being taken round shafting.	30 „
Skull fractured by being knocked down by a taxi-cab.	31 „
Shock from Scalds.	3 „
Accidentally scalded.	14 months.

Strangled himself.	67 years.
Hanged himself while temporarily insane.	38 „
Hanged himself while temporarily insane from excessive drinking.	53 „
Acute inflammation of the Kidneys from a chill.	41 „
Sudden Heart Failure from inflammation of the Kidneys.	55 „
Sudden Convulsions.	7 „
Meningitis.	4 „
Convulsions from Colic.	1 day.
Found dead alone in her house from Chronic Rheumatism and an Embolism in the Brain.	77 years.
Found dead from Malnutrition from improper feeding and want of cleanliness.	3 months.
Accidentally suffocated through want of assistance at birth.	12 hours.
Sudden Convulsions due to Teething.	10 months.
Found dead in bed with her mother from Intestinal Colic due to the milk given her not being suitable.	12 weeks.

NON-RESIDENTS.

Fell down and died from sudden Heart Failure due to Valvular and Atheromatous Heart Disease.	61 years.
Shock from Burns.	11 „
Exhaustion from Severe Burns.	57 „
Accidentally scalded.	9 months.
Skull accidentally injured by being struck by a belt on shafting at Soothill Wood Colliery.	28 years.
Spine accidentally fractured.	65 „
Head accidentally crushed between a large stone and the quarry face while at work—instant death.	36 „

Table shewing number of deaths of residents in various age periods during 1910.

Age period	Number of deaths
Under 1 year	107
1— 5 years	36
5—15 „	21
15—25 „	17
25—65 „	183
65 years and over	152
Total	516

It will be seen that the least number of deaths occurred during the age period 15-25, and the greatest during the period 25-65.

The following table shows the chief causes of death during the year, and a comparison is made with the two preceding years.

	Year 1910.			Year 1909.			Year 1908.		
	M	F	Total	M	F	Total	M	F	Total
Epidemic Diarrhœa ...	4	4	8	5	1	6	27	21	48
Other Zymotic Diseases	12	6	18	10	9	19	15	17	32
Phthisis ...	14	13	27	16	13	29	21	12	33
Other Tubercular Diseases	7	5	12	12	12	24	8	13	21
Cancer ...	17	22	39	17	17	34	16	27	43
Bronchitis ...	32	23	55	19	20	39	29	21	50
Pneumonia ...	14	16	30	13	20	33	23	15	38
Disease of Heart and Blood Vessels ...	44	53	97	42	48	90	40	53	93
Urinary System ...	17	17	34	8	17	25	14	14	28
Nervous System ...	14	21	35	19	13	32	14	12	26
Digestive System ...	6	13	19	6	10	16	9	8	17
Old Age ...	7	20	27	10	10	20	15	13	28

DIMINISHED.	INCREASED.
Phthisis.	Epidemic Diarrhœa.
Other Tubercular Diseases.	Other Zymotic Diseases.
Pneumonia.	Cancer.
	Bronchitis.
	Diseases of Heart and Blood Vessels.
	Urinary System.
	Nervous System.
	Digestive System.
	Old Age.

A table is given below in which are shewn some of the principal vital statistics, and a comparison is made with those of England and Wales, &c.

	Births.	Death Rates.	Deaths of Children under 1 year per 1000 births.	Zymotic Death Rate.
England and Wales	*			
77 Great Towns ...	24.8	13.4	106	0.99
136 Smaller Towns...	25.0	13.4	115	1.23
England and Wales, less the 213 Towns	23.7	12.4	104	0.88
	25.0	13.6	96	0.74
BATLEY	22.3	14.0	130	0.7

*Lowest ever recorded.

OCCUPATIONAL MORTALITY.

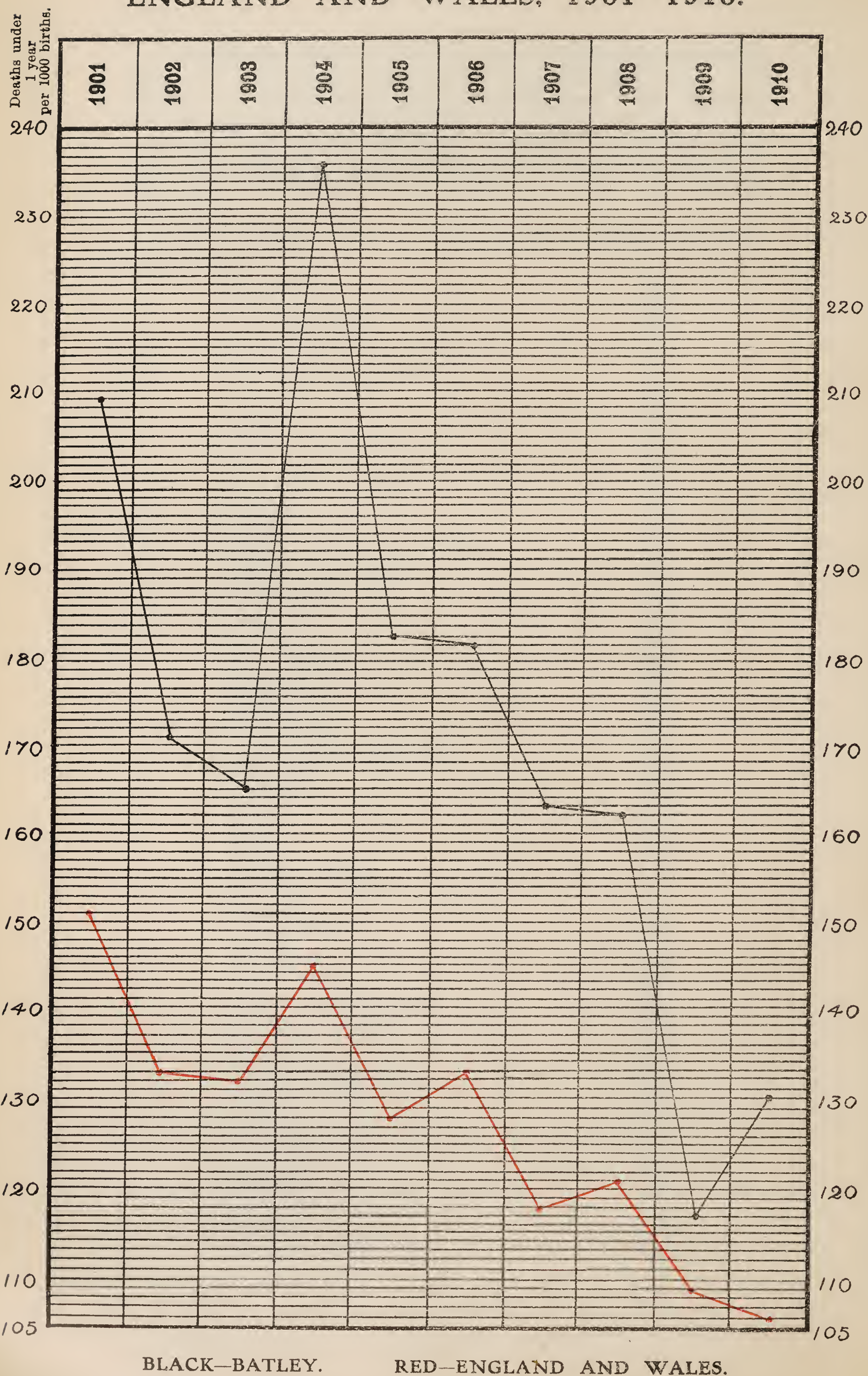
The Registrar General in his supplement to his report on the last census (1901), gives the comparative mortality figures for a number of occupations. It shows the deaths calculated to occur in various occupations between the ages of 25 and 65.

The figure 1000 is taken as the comparative mortality figure for all males, and this is compared with the comparative mortality figure for each occupation. For instance, if 1000 males of all occupations are likely to die in any particular year, only 515 of the population would die were they all Clergymen, whilst on the other hand 952 would die were they all Doctors, and 1240 were they all Chimney Sweeps.

The following table of occupational mortality may prove of interest.

Clergyman	...	...	515
Gardener	...	...	527
Agriculturalist	...	...	559
Gamekeeper	...	...	561
Agricultural Labourer	...	...	572
Schoolmaster	...	...	599
Grocer	...	...	670
Tallow Manufacturer	...	...	689
Railwayman	...	...	717
Barristers, Solicitors	...	...	739
Draper	...	...	755
Artist	...	...	760
Indoor Domestic Servant	...	...	815
Commercial Clerk	...	...	837
Coal Miner	...	...	846
Baker	...	...	852
All Miners	...	...	859
Law Clerk	...	...	880
Fisherman	...	...	892
Tobacconist	...	...	898
Shoemaker	...	...	901
Commercial Traveller	...	...	907
Druggist	...	...	934
Printer	...	...	935
Doctor	...	...	952
Tailor	...	...	953
Metal Worker	...	...	973
Plumber, Painter, Glazier	...	...	1041
Butcher	...	...	1062
Carman, &c.	...	...	1094
Musician	...	...	1140
Lead Miner	...	...	1199
Glass Manufacturer	...	...	1202
Chimney Sweep	...	...	1240
Brewer	...	...	1324
Dock Labourer	...	...	1374
Lead Manufacturer	...	...	1385
Potter	...	...	1420
General Shopkeeper	...	...	1421
File Maker	...	...	1602
Publican	...	...	1669
Inn and Hotel Servant	...	...	1767
Hawker	...	...	1778
General Labourer	...	...	1987

INFANTILE MORTALITY IN BATLEY AND ENGLAND AND WALES, 1901-1910.



INFANTILE MORTALITY.

I give here a chart shewing the infantile mortality in Batley during the last ten years, and also the infantile mortality in England and Wales during the same period.

During 1910, the number of children born was 823, and 107 of them died before reaching the age of one year. The infantile mortality rate is, therefore, 130 per 1000 births.

Of the deaths 97 were legitimate and 10 illegitimate.

Table showing Infantile Death Rates in the four Wards during 1910.

Ward	Number	Percentage
North ...	28	119.1
East ...	35	131.0
West ...	32	161.6
Soothill	12	97.5

Table showing the Infantile Mortality in each of the four quarters during 1910.

1910	Infantile deaths per 1,000 births
1st Quarter	143.7
2nd do.	120.1
3rd do.	113.1
4th do.	148.5

Table showing number of children dying in each of the first twelve months of 1910.

Month of Life	Number of Deaths.		
First ...	43	} 1st Quarter ...	58
Second ...	9		
Third ...	6		
Fourth ...	6	} 2nd Quarter ...	18
Fifth ...	8		
Sixth ...	4		
Seventh ...	4	} 3rd Quarter ...	16
Eighth ...	5		
Ninth ...	7		
Tenth ...	6	} 4th Quarter ...	15
Eleventh ...	6		
Twelfth ...	3		

Table showing the number of children dying in each of the first four weeks of life.

Week of Life.	Number of Deaths.		
First ...	33	} 43	
Second ...	5		
Third ...	4		
Fourth ...	1		

TABLE V.
INFANTILE MORTALITY DURING THE YEAR 1910.
Deaths from stated Causes in Weeks and Months under One Year of Age.

(See Notes at Back of Table IV in Appendix.)

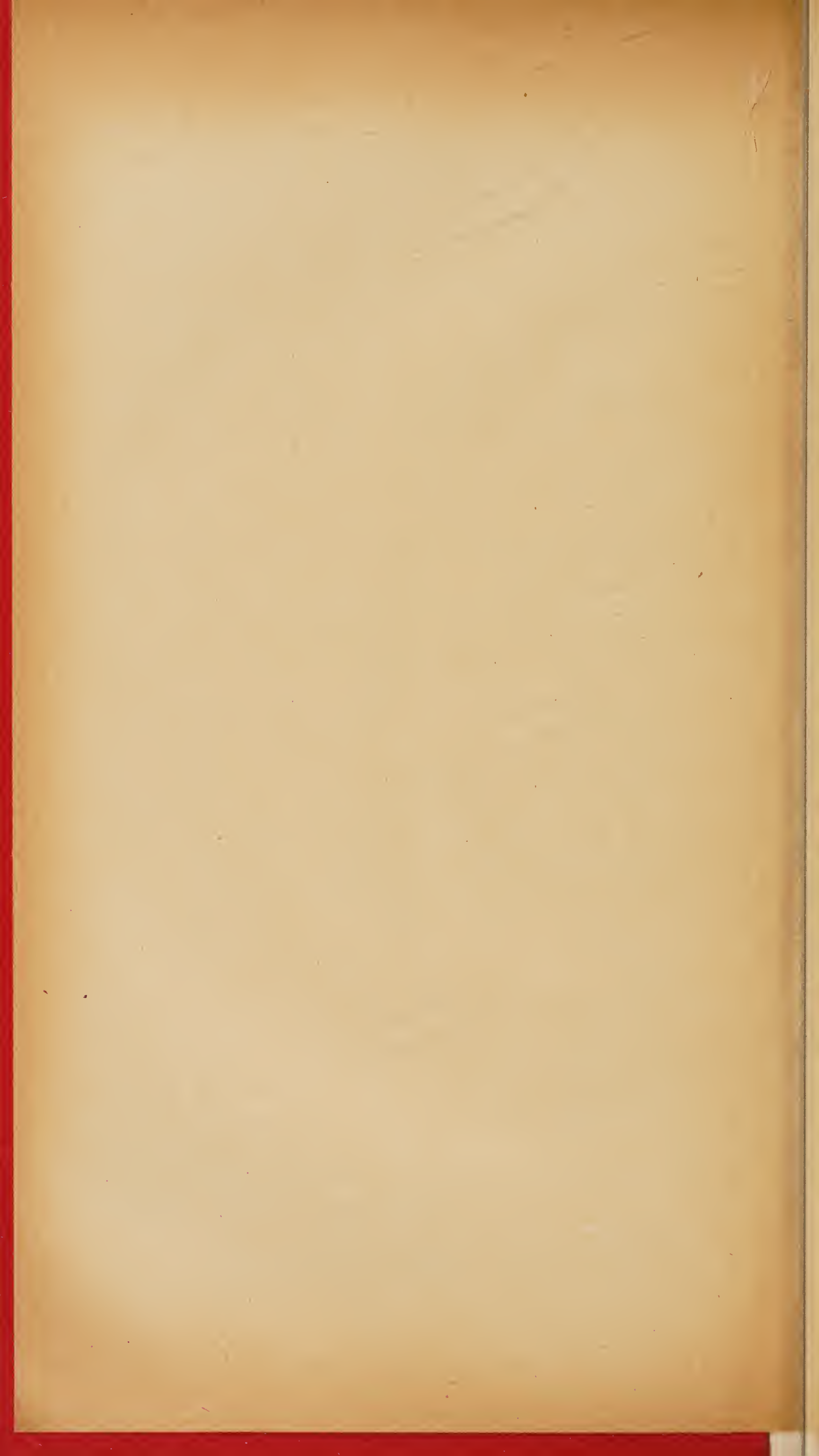
CAUSE OF DEATH.			Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month	1-2 Months	2-3 Months	3-4 Months	4-5 Months	5-6 Months	6-7 Months	7-8 Months	8-9 Months	9-10 Months	10-11 Months	11-12 Months	Total Deaths under 1 year
All Causes	{ Certified	...	33	5	4	1	43	9	6	6	8	4	4	5	7	6	6	3	107
	{ Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
COMMON INFECTIOUS DISEASES.																			
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Whooping Cough	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	2
DIARRHOEAL DISEASES (See Notes to Table IV.)																			
Diarrhoea, all forms	...	...	...	...	1	...	1	...	...	1	2	2	...	...	...	...	1	...	7
Enteritis. Muco-enteritis, Gastro-enteritis	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	3
Gastritis, Gastro-intestinal Catarrh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
WASTING DISEASES.																			
Premature Birth	...	...	21	1	...	...	22	2	1	...	...	...	...	...	...	...	...	...	25
Congenital Defects (See Notes to Table IV.)	...	...	7	3	...	...	10	1	...	...	...	...	...	1	...	...	...	...	12
Injury at Birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Want of Breast-milk, Starvation	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, Marasmus	...	...	1	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	2
TUBERCULOUS DISEASES.																			
Tuberculous Meningitis (See Notes to Table IV.)	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	2
Tuberculous Peritonitis: Tabes Mesenterica	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Other Tuberculous Diseases (See Notes to Table IV.)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
OTHER CAUSES.																			
Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous)	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	2
Convulsions	...	...	1	...	1	1	3	1	2	...	2	...	...	1	...	...	...	...	9
Bronchitis	...	...	...	...	...	...	...	4	1	1	1	...	2	1	2	1	1	1	15
Laryngitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Pneumonia	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	1	1	5
Suffocation, overlying	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Causes	...	...	3	1	2	...	6	...	...	1	2	...	...	1	3	2	2	...	17
			33	5	4	1	43	9	6	6	8	4	4	5	7	6	6	3	107

Borough of Batley..Population Estimated to middle of 1910.....36,818.

Births in the year { legitimate 789.
 { illegitimate 34.

Deaths in the year of { legitimate infants 97.
 { illegitimate infants 10.

Deaths from all Causes at all Ages 516.



PRINCIPAL CAUSES OF DEATH UNDER ONE YEAR

from 1900-1910 inclusive.

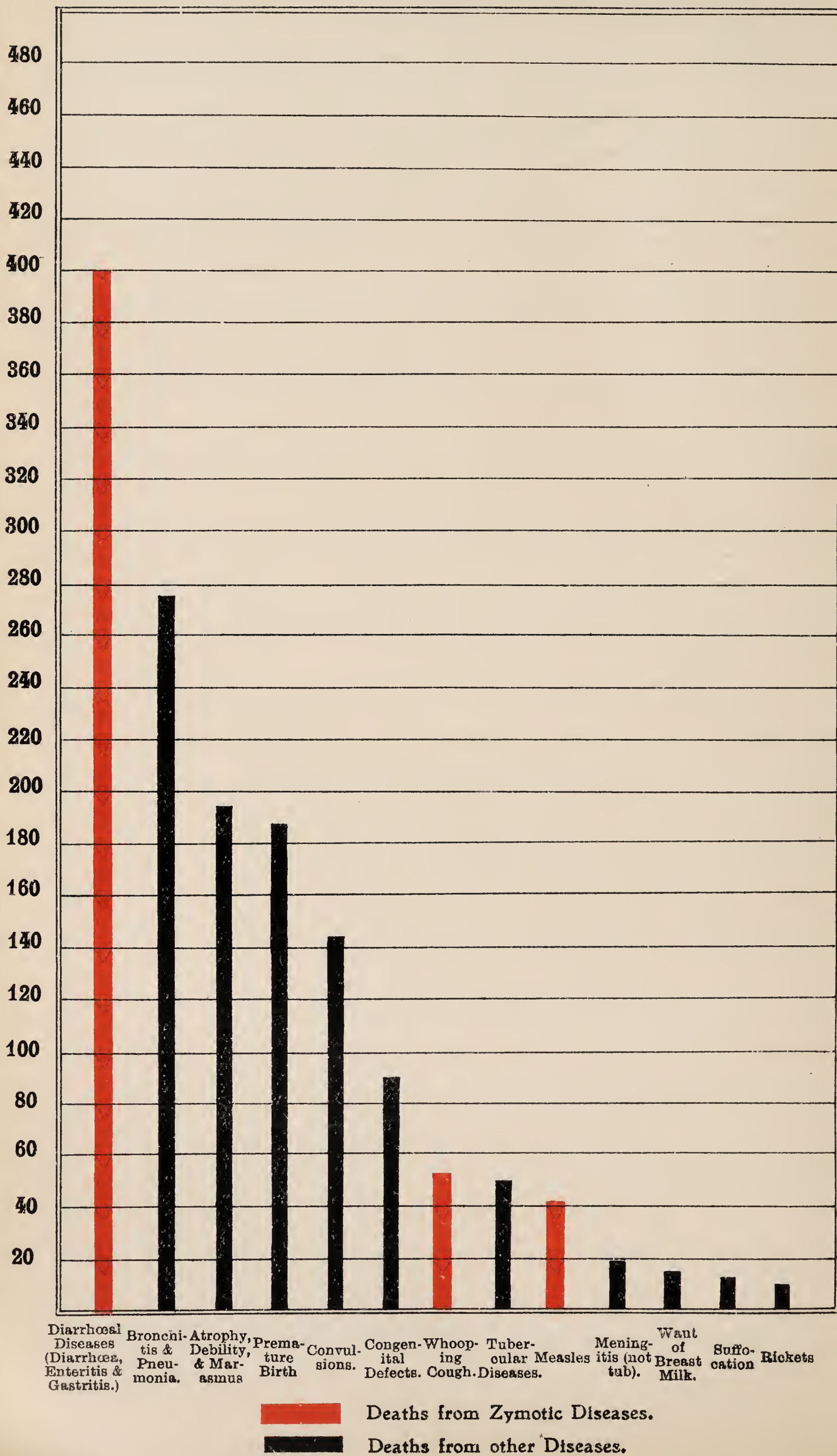


Table showing the chief causes of death under one
year of age since 1900.

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	Total	Percentage
Diarrhoeal Diseases (Diarrhoea, Enteritis, Gastritis)	23	67	21	26	69	47	61	27	43	6	10	400	25.3
Atrophy, Debility, Marasmus	28	35	31	19	21	12	16	17	9	4	2	194	12.3
Premature Birth	13	20	12	13	20	15	15	14	22	18	25	187	11.8
Convulsions	11	11	14	15	18	10	12	20	13	10	9	143	9.1
Congenital Malformations	5	4	6	9	10	4	2	10	14	14	12	90	5.7
Measles	10	1	8	...	9	1	2	2	6	1	1	41	2.6
Whooping Cough	1	10	2	10	6	4	6	4	2	5	2	52	3.3
Other Infectious Disease	1	...	...	...	1	1	...	...	...	...	2	5	0.3
Tuberculosis (All forms)	5	4	3	8	4	8	5	2	2	3	4	48	3.0
Meningitis non-Tubercular	1	...	5	...	1	1	5	2	1	1	2	19	1.2
Overlying	1	4	1	1	...	...	...	1	...	...	...	8	0.5
Bronchitis	26	19	20	18	14	18	15	12	10	9	15	176	11.2
Pneumonia	8	5	12	12	12	18	10	5	7	5	5	99	6.3
Other Causes	15	9	13	8	8	12	6	7	10	10	18	116	7.4
	148	189	148	139	193	151	155	123	139	86	107	1578	100.0

Table giving comparison of infantile death rate during 1910 in various towns.

England and Wales ...	...	...	106
77 Great Towns ...	...	...	115
136 Smaller Towns ...	...	...	104
Keighley ...	...	...	101
Wakefield ...	...	...	109
Dewsbury ...	...	...	147
Brighouse ...	...	...	89
Barnsley ...	...	...	244
BATLEY ...	...	...	130

The chief causes of infantile mortality, common to every locality are, briefly, premature birth, congenital defects, hereditary tendencies, inexperience and neglect of mothers, industrial conditions, improper food, and overlaying.

Dr. Newsholme, Chief Medical Officer to the Local Government Board, has recently prepared a most valuable report on this subject. When in Brighton, at the Congress of the Royal Sanitary Institute, I had the benefit of listening to a lecture by Dr. Newsholme in connection with this particular Report.

It was shown that where there is excessive infantile mortality it is not confined to this period of life alone, but extends throughout child life and adult life also. It is always high in districts where female labour is largely employed in manufactures.

From the infantile mortality rate an idea as to the general sanitary condition of a district may be obtained. The rate varies not only in different parts of the country, but in different parts of the same town. It is the lowest in the agricultural districts, and highest in the mining and industrial districts. In towns, it is highest in the poorer districts where the population is densest and where overcrowding is most marked. Dr. Newsholme shows conclusively that "the incidence of excessive infant mortality in the different counties, and the causes of this excess, among which Diarrhœal Diseases bulk so largely, show that unsatisfactory municipal sanitation bears a large share in the continuance of an excessive infant mortality."

A review of the steps taken by the Sanitary Committee of this Borough during recent years entirely bears out the above statement. As insanitation has been more vigorously dealt with, so has the infantile death rate consistently fallen. Of course it must be remembered that during the last few years the climatic conditions have been entirely favourable so far as Diarrhœal Diseases are concerned, but this is not the only cause of the fall in the rate. Last year owing to a large extent to a greater number of premature births, and a less number of children born on which to calculate the rate, the infantile death rate rose from 116.8 to 130 per 1000. Had there been the same number of premature births as in the previous year, the rate would have been 121.5 per 1000. In any case it is to be expected that fluctuations will occur, but the great outstanding fact remains that owing to improved sanitation the infantile death rate has been remarkably reduced in Batley, and this is most encouraging to the Sanitary Committee and its Officials.

There is much to be done, however, before this rate is as low as can reasonably be expected, but if the efforts now being made are not relaxed, and such is most improbable, the future holds out very bright prospects.

One very disappointing feature is the fact that cases recur in which a child dies owing to improper methods of feeding and this notwithstanding the fact that the Health Visitor most carefully instructs the mothers as to the proper diet. Fortunately these cases are not in the majority, but there are some mothers, who, although for a time carry out instructions, disobey them later with consequent evil effects to their offsprings.

Various causes of premature birth have been given, amongst which are lead poisoning, and the working of expectant mothers in mills. I have not seen anything in Batley to support the first conclusion, but I am of opinion the second has some influence but not to any great extent so far as Batley is concerned, for of the premature births only three mothers went out to work.

The compulsory instruction of the older girls, in all the elementary schools, in the feeding and care of infants would be a most valuable thing, for it is surprising how ignorant some mothers are in these matters. It is not very long since that I saw a child four months old sitting on its mother's knee, sucking the meat out of a raw sausage which the mother was holding. I also remember a case in which a child had been fed on oatmeal porridge alone from its birth, and gradually wearing to a shadow, died at the end of three months.

Rickets is a disease very prevalent amongst babies in industrial centres. The main causes are improper feeding and bad hygienic conditions. Many of the deformed persons seen in our streets suffered from this disease in early life, the deformity being the result. It appears to be certain that deficiency of cream in milk is especially provocative of Rickets, and during the year we have had examples of abstraction of cream and the watering of milk by unscrupulous dealers in cases taken before the magistrates. By the use of such milk, and of impoverished condensed milk, many infants throughout the country are being practically starved, and the results are to be seen in excessive child mortality and in weakly youth often with deformity of limbs.

Milk from tubercular cows given to infants is also a fruitful source of Tuberculosis, resulting either in early death or in years of suffering.

In my opinion, too serious a view can hardly be taken by the authorities in cases where dealers are convicted of offences against the purity of milk. It is not entirely a question of defrauding the buyers of their money, this would not be so serious, but it is the lives of the children who have to be brought up on cow's milk which are being risked, and for this reason I consider severe punishment is merited.

HEALTH VISITOR.

Soon after I took up office in Batley, Miss Terry, who then held the position of Health Visitor, informed me that

she had found the work getting too heavy and that she did not feel capable of going through the Diarrhœa Season again. She, therefore, proposed to resign her appointment on June 30th. During the time Miss Terry was in Batley she did very good work amongst the mothers and infants. Miss Terry was succeeded by Miss Harris who holds the certificates of the Royal Sanitary Institute and Central Midwives Board, being also a fully trained Nurse, and formerly Health Visitor for Wandsworth. I have requested Miss Harris to report upon her work, and such report will be found in the appendix.

During the six months of the year the Health Visitor paid 2,214 visits to mothers and infants. Her work also extends to cases of Consumption, but this is dealt with under its appropriate heading.

All births are visited, if possible, the same day as the notification is received. Re-visits are paid as often as circumstances require it, so far as this is possible with due regard to the necessity of all births being visited at least once.

SCHOOL FOR MOTHERS. Tuesday afternoons from 2 to 4 o'clock are devoted to being in attendance to see mothers at the Town Hall. From the inauguration of this in August last, an increasing number of mothers have attended and it is most successful.

WINTER EVENINGS. It was found that some of the mothers who it was most desirable to get at would not come to the Town Hall, and hence the only way was to get at them in their own homes. I arranged with Miss Harris that she should give some home talks to these mothers on the spot, and a reference to her report shows its great success.

FOLLOWING UP CASES. Much of the good that has been done falls short of what might be done were it possible to have suitable cases kept under supervision, and visited oftener than it is possible for one Health Visitor to do. If a voluntary band of lady workers could be organised to work

in connection with and under the supervision of the Health Visitor, much good would arise. Suitable cases would be handed over to these ladies, who would exercise supervision during the intervals between the visits of Miss Harris.

There is a Voluntary Society in Batley, called the Batley Public Health and District Nursing Service.

To this Society belongs the credit of first taking up the question of infantile mortality in Batley, and through the efforts of the ladies and gentlemen who compose it, splendid work has been done in the town. The Society (whose primary function is to nurse the sick poor of the town, and for which purpose they provide a special nurse) commendably raised the salary of a Health Visitor for two years, and in July, 1909, the Corporation took over this lady entirely, paid her salary, she became an Official of the Corporation, and has remained so since.

From the report of Dr. Clements for 1909, I extract the following :—

“ During the year 1909, an attempt was made to place
“ the visiting and re-visiting of babies on a proper basis.
“ The Borough was divided into three districts, the three
“ municipal wards being taken as having well defined
“ boundaries, and a lady helper was appointed as Superin-
“ tendent in each ward to undertake the re-visiting and
“ supervising of the health of the babies of the district.”

“ This scheme has not been carried out to the extent
“ originally intended, there being some difficulty in obtain-
“ ing suitable lady helpers, but I feel sure that if properly
“ carried out it will be a great help in finding out babies
“ that are badly nourished and not thriving, and so lead
“ to some steps being taken to improve their condition.”

Miss Terry also informed me that some difficulty arose in her own case insomuch as she found it rather embarrassing, after she became an Officer of the Corporation, to render a report to the Voluntary Society on work done for the Corporation under the supervision of Dr. Clements.

After Miss Harris was appointed the same difficulty arose. I myself proposed that a meeting should be held to map out the enlarged Borough and appoint lady helpers. Unfortunately the meeting never was held. I later proposed that the Corporation Health Visitor should be offered a seat on the Committee of the Voluntary Society in order to work hand in hand with the lady members of the Society, which she was anxious to do. This proposition did not mature, it being unacceptable to the Society I was given to understand. It is regrettable that some permanent basis was not reached.

Miss Harris is doing most excellent work in the town, and if any ladies, who are desirous of assisting in that work, will give their names to Miss Harris, or the Medical Officer of Health, there is a very large field open for their ministrations.

A successful tea, at which the Mayor and Mayoress received those invited, was given by the Voluntary Society to about five hundred mothers of babies, during June.

METHODS OF FEEDING. Of the 56 infants who died during the last six months of the year, which is the period during which Miss Harris has been in office, 12 were wholly breast fed, 13 were fed on cow's milk either fresh, dried, or in condensed form, 8 were fed on artificial food, 7 on artificial food together with breast milk, 3 on cow's milk together with breast milk, and in 13 cases no food was taken at all.

Taking the whole of the births for the year, viz:—823, it appears that in only 26 cases was artificial feeding resorted to from the first. 11 of the 13 mothers were of the better class, not the poor. Only 6 of the 26 mothers of these children are working mothers. 7 of the babies had to be artificially fed on account of serious illness of the mother, and in two cases the mother died during confinement. A large percentage of mothers have lost their milk after the first fortnight, in spite of every effort having been made to continue breast feeding. Some mothers have had to discontinue on account of their own health, or the fact that their milk did not nourish the babies. In these cases the

Health Visitor strongly urges the mothers to seek medical advice before weaning, and she tells me that in most cases she is successful in getting the mothers to consult their doctor. One unfortunate feature is that a number of the babies are either weaned, or partially weaned, in order to enable the mother to go back to work in the mill. Medical Officers of Health throughout the country would welcome a bill prohibiting women from working in the mills, or other places where female labour is employed, for several months previous to the birth of their infant, and for the whole period during which they are suckling the child. I would in fact go further and make it illegal for any mother to go out to work at all unless it could be shewn to be a case of dire necessity. A mother's proper place is at home with her children.

I give here a few family histories showing the worst class of cases so far as infantile mortality is concerned. In each case a death occurred in an infant during the year, thereby bringing the family to our notice. The causes of death of the other children are given.

Case (1). 9 children, 7 dead. Mother works in mill.

	(a)	Still-born.	
	(b)	Still-born.	
	(c)	Bronchitis	age 6 months.
	(d)	Hydrocephalus	6 months.
	(e)	Tubercular Peritonitis	23 months.
Twins	(f)	Congenital Weakness	3 days.
	(g)	Congenital Weakness	5 days.

Case (2). 11 children, 8 dead.

(a)	Still-born.	
(b)	Still-born.	
(c)	Still-born.	
(d)	Still-born.	
(e)	Still-born.	
(f)	Debility	3 hours.
(g)	Still-born.	
(h)	Acute Bronchitis	1 month.

Case (3). 9 children, 5 dead.		
	(a) Spina Bifida	2 weeks.
	(b) Debility	5 weeks.
	(c) Still-born.	
Twins	{ (d) Atelectasis	1 day.
	{ (e) Atelectasis	1 day.

Case (4). 11 children, 7 dead.

Mother says she forgets their histories, which seems remarkable.

Case (5). 3 children, all dead.

(a)	Cause unknown.	
(b)	Cause unknown.	
(c)	Prematurity	1 day.

Case (6). 8 children, 5 dead.

	(a) Pneumonia	7 months.
	(b) Bronchitis	9 weeks.
	(c) Pneumonia	13 months.
Twins	{ (d) Premature Birth.	
	{ (e) Premature Birth.	

Case (7). 3 children, all dead. All illegitimate.

(a)	Debility	3 days.
(b)	Convulsions	3 months.
(c)	Diarrhœa	2 months.

When the Health Visitor pays her first visit on a birth being notified, she leaves with the mother a pamphlet giving instructions respecting the feeding and proper method of dealing with an infant. A copy of this pamphlet is here given.

This Handbill should be kept for Reference.

BOROUGH OF BATLEY.

THE FEEDING AND CARE OF INFANTS.

Feeding.

1.—The best food for a young infant is its mother's milk. **Every infant should therefore be suckled**, if possible, unless the mother has medical advice to the contrary.

2.—Suckle once every two hours during the day, and once every four hours during the night, until baby is about six weeks old, when every three hours will be often enough. As it grows older feed it less often, until at seven months it should be fed every three-and-a-half hours by day, and once by night. It is important for both mother and child that the **suckling should always be at regular intervals**, and not whenever the child cries. Crying is often a sign of pain from too frequent feeding.

3.—If the mother has not enough milk to satisfy the child it should still be suckled, but should in addition have one or more feeds of milk and barley water as described in Rule 7. **There is no danger in mixing the Milks.**

4.—During the suckling period the mother should take plenty of good, plain, nourishing food, but should avoid beer, wines and spirits, unless under advice. The mother should wash her nipples each time before and after suckling, and also wash out the baby's mouth. By these means thrush and cracked nipples may be avoided.

Weaning.

5.—Select a time when the child is free from any illness. Do not wean an infant during July, August or September, when there is so much risk of Diarrhœa.

Hand Feeding—The Bottle.

6.—**Bottles without tubes should be used.** Two should be provided. They should be simply fitted with a large indiarubber teat, which can be turned inside out for washing. A round hole should be bored in the teat with a heated needle, the hole being of such a size that the milk flows out

in drops when the bottle is held upside down. After use the bottles should be rinsed and scalded, and allowed to drain while the other bottle is being used. Once a day each bottle and teat should be boiled. This can be done without breaking the bottle, by putting it in a saucepan full of cold water and gradually bringing to the boil. A piece of clean rag should be put under the bottle to prevent its resting on the bottom of the pan.

The Food.

7.—Specially prepared mixtures of milk and cream are the best substitute for mother's milk ; most infants, however, will thrive on cow's milk mixed with barley water, if constant care be taken to prepare it properly and to use a suitable form of bottle. Only milk that is perfectly fresh and of good quality should be used for the baby's food. Before use the milk should be at the temperature of the hand, i.e., 98 degrees Fahrenheit or blood heat. If the child does not thrive on cow's milk and barley water, medical advice should be sought.

8.—Barley Water is made by boiling two teaspoonsful of patent barley in a pint of water. Always prepare fresh at least once a day. Add this to the milk **and boil the mixture**. It should be sweetened with a small lump of sugar added to each bottle.

9.—Table of Feeds.

Age of Child.	How often fed.	Average quantity for each feed.	
		Milk.	Barley Water.
Under 1 week	...Every 2 hours (by day)...	1 tablespoon...	2 tablespoons
2—6 weeks	...Every 2 hours „ ...	2 „ ...	4 „ ...
6 wks.—3 months	...Every 2½ hours „ ...	5 „ ...	5 „ ...
3—6 months	...Every 3 hours „ ...	8 „ ...	4 „ ...

It is well to let the quantity largely depend on the appetite. The best test that a child is being properly fed is its weight. This should be ascertained from week to week, and advice obtained if the child is not steadily gaining weight. At six months a healthy child will take 1½ pints of milk in 24 hours. At nine months it will take two pints of milk in 24 hours. **A child that is overfed and does not digest its food wastes like one starved.**

10.—When the baby has reached **seven months**, the use of the bottle should be discontinued, and the child should be fed with a spoon or from a cup. The strength of the food should now be increased till the baby takes pure milk, which should, however, still be boiled. At two meals (night and morning) a small quantity of prepared food, such as Benger's, Mellin's, Savory and Moore's, Nursery biscuits or grated rusks may be added to the milk. Ordinary bread and milk, or porridge, should not be given at this age, but a little wheat flour, baked in the oven until it is nicely browned, may be given with the milk if the other foods cannot be obtained. **All infant foods should be given in small quantities at first, and only to infants over seven months old.**

11.—At **12 months**, a lightly boiled egg, a little broth, a few crumbs soaked in red gravy, a little milk pudding, porridge, bread and milk, or small pieces of bread and butter may be added to the diet.

12.—At **18 months** a little finely minced meat, pounded fish or mashed potatoes with gravy may be given at one meal in the day. Never give an infant "what we have ourselves," cheese, bacon, tea, or beer, nor soothing syrups, and teething powders. Wine or spirits should only be given under medical advice. If the baby is not thriving, see what a slight change in the strength of food or kind of food will do. Do not allow it to be continually gnawing at pieces of bread or biscuit, if the baby continues to ail, seek medical advice.

CLOTHING.

13.—A young infant should be lightly but warmly clad in flannel. Binders are unnecessary after the navel has healed. When the baby is short coated, the feet and legs should not be left bare. Older children also should have their arms and legs as well as their bodies warmly clothed with flannel. It is a great mistake to try to harden infants by letting them expose their arms and legs in cold weather.

Cleanliness.

14.—Wash all over in warm water once a day before a fire. Dry very carefully. If the folds of the skin are red,

use some drying power such as boracic acid, zinc and starch, or Fuller's earth.

Never let a wet napkin remain on for a minute.

Fresh Air.

15.—The window should be kept open night and day throughout the year. The baby will not "catch cold" or suffer in any way if properly clothed. Let the baby be in the open air every day when the weather is fine.

If you are not able to send anyone out with the baby, let it lie out in a cot or perambulator in the open air.

Sleep.

16.—Every infant should sleep in a cot by itself. It is very dangerous to allow an infant to sleep in the same bed with an older person. Many children lose their lives every year by being overlaid by their mothers.

Fire.

17.—No child should be left alone within reach of a lamp or fire. Suitable fireguards can be obtained for a small cost. Clothes should not be made of inflammable flannelette.

Baby Comforters.

18.—Comforters or dummies should not be used. They become dirty, and thus cause sickness and diarrhœa. Their use also deforms the mouth, and leads to growths at the back of the nose as the child grows older.

Eyesight.

19.—The eyes of a newly born baby should be very carefully cleansed with clean warm water and a clean rag immediately after birth. Should any redness of, or discharge from, the eyes come on, you should immediately seek medical advice, carefully wiping and washing the eyes by squeezing clean warm water from a clean rag till the doctor comes. The rag should be thrown away after use, and a new piece used each time. On no account drop milk or anything but water into the eyes. **Affections of the eyes in newly born infants often lead to blindness if neglected.**

G. H. PEARCE,

Medical Officer of Health.

PUBLIC HEALTH DEPARTMENT,
BATLEY.

CANCER.

Although during the last decade great advances have been made in investigating the various forms of malignant growths, their cause is still wrapped in some obscurity. From recent researches it seems probable that cancer has a certain prevalence in certain districts and that in some districts it is endemic in the same way as Cholera, which disease is always endemic in the delta of the Ganges. Cancer seems to affect in a greater degree, populations living in low lying valleys with clay soils. Populations on high and dry soils are not apparently so subject to malignant disease. Isolated cancer houses or groups of houses exist in some districts, the disease attacking the inmates in such sequence as to make it appear probable that the cause of the malady has some connection with the house or surroundings. During the past fifty years there has been an increased mortality from Cancer in England and Wales, but this may be more apparent than real, better and more exact methods of diagnosis being now available.

During 1910, 39 persons died from Malignant Disease in Batley. 17 were males, and 22 females. This is an increase of 5 over the preceding year.

The following table gives the deaths from Cancer during the last 11 years.

Year.	Deaths.	Year.	Deaths.
1900	22	1906	29
1901	27	1907	33
1902	24	1908	43
1903	26	1909	34
1904	24	1910	39
1905	27		

ZYMOTIC DISEASES.

The term Zymotic is usually limited to those communicable or infectious diseases which occur in epidemics. The diseases which are included in the term Zymotic when referring to the Zymotic Death Rate are Small Pox, Scarlet Fever or Scarlatina, Diphtheria (which also includes Membranous Croup), Typhoid (or Enteric) Fever, Measles, Whooping Cough, and Diarrhœa. The first four diseases are notifiable, meaning thereby that their notification to the Medical Officer of Health is compulsory under the Infectious Diseases Notification Act of 1889. The three latter are not included in this Act, and hence are known as non-notifiable.

The Health Department in Batley becomes aware of the existence of most of the cases of Measles and Whooping Cough through the notifications received from the Head Teachers in the schools.

The zymotic death rate for Batley during the year 1910 amounted to 0.7 per 1000. This is the lowest ever recorded in the Borough.

The increase in the number of deaths in 1910 was in the case of Measles, 3 against 1 in 1909, Diphtheria, 7 against 4 in 1909, and Diarrhœa, 8 against 6 the previous year.

Table giving comparison of zymotic death rate during 1910 in neighbouring towns.

Keighley	...	...	...	0.69
Wakefield	...	...	...	1.14
Dewsbury	...	...	...	1.07
Brighouse	...	...	...	1.06
Barnsley	...	...	...	2.66
BATLEY	...	...	...	0.7

Decreases were Scarlet Fever, 1 against 3, Whooping Cough, 4 against 7, Enteric (Typhoid) Fever, 2 against 4 in the previous year.

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
England and Wales	2.00	2.05	1.64	1.46	1.94	1.52	1.73	1.26	1 29	1.12	0.99
76 Great Towns	...	...	2.12	1.89	2.49	1.88	2.24	1.54	1.59	1.42	1.23*
142 Smaller Towns	...	...	...	...	2.03	1.50	1.71	1.29	1.26	1.08	0.88*
BATLEY	3.3	3.6	2.3	1.9	5.8	2.9	3.5	1.7	2.5	0.78	0.7

* The figures for 1910 are for 77 great towns and 136 smaller towns, the Registrar General having made a re-arrangement.

The following table gives the number of notifications received, and deaths from, the various notifiable diseases, during the period 1890 to 1910.

YEAR.	SCARLET FEVER		DIPHTHERIA AND MEMBRANOUS CROUP		ENTERIC AND CONTINUED FEVERS.		SMALL-POX.		ERYSIPELAS.		PUERPERAL FEVER.	
	No. of Notifications	Deaths	No. of Notifications	Deaths	No. of Notifications	Deaths	No. of Notifications	Deaths	No. of Notifications	Deaths	No. of Notifications	Deaths
1890	74	1	28	4	33	12	0	0	30	4	5	2
1891	85	8	68	7	139	17	89	13	35	0	1	3
1892	130	16	121	18	33	8	453	49	58	3	5	0
1893	95	7	100	13	60	8	14	3	53	3	5	3
1894	120	11	83	10	57	11	3	0	36	4	2	2
1895	47	0	29	3	47	6	0	0	41	1	1	3
1896	127	7	12	0	52	10	0	0	35	0	2	2
1897	135	16	20	3	41	10	0	0	22	1	1	0
1898	146	10	24	8	111	15	1	0	32	1	2	0
1899	64	2	33	7	73	16	1	0	31	3	3	3
1900	38	0	23	9	46	11	0	0	14	2	2	1
1901	62	1	16	3	53	13	0	0	11	0	1	2
1902	21	0	39	6	30	27	10	2	15	1	1	0
1903	88	6	51	4	42	8	57	2	9	1	0	0
1904	202	14	46	9	104	22	103	6	12	1	1	2
1905	233	15	23	3	82	11	21	2	18	1	3	2
1906	74	5	18	4	35	3	0	0	12	1	4	4
1907	19	2	28	6	22	2	0	0	7	0	0	1
1908	48	1	27	5	31	7	0	0	17	0	2	0
1909	122	3	25	4	24	4	0	0	13	1	1	1
1910	35	1	60	7	10	2	0	0	24	2	2	2

The following table gives the deaths from the various non-notifiable diseases since 1890, and the number of notifications received since 1909.

YEAR.	CHICKEN-POX.		MUMPS.		MEASLES.		WHOOPIING COUGH.		DIARRHŒA.	
	No. of Notifications	Deaths	No. of Notifications	Deaths	No. of Notifications	Deaths	No. of Notifications	Deaths	No. of Notifications	Deaths
1890	10	...	5	...	33
1891	18	...	7	...	20
1892	4	...	16	...	17
1893	32	...	9	...	77
1894	2	...	5	...	12
1895	0	...	3	...	46
1896	67	...	17	...	19
1897	10	...	18	...	44
1898	13	...	20	...	30
1899	0	...	3	...	53
1900	52	...	8	...	35
1901	4	...	22	...	86
1902	37	...	7	...	20
1903	1	...	18	...	34
1904	32	...	19	...	84
1905	3	...	11	...	55
1906	4	...	18	...	84
1907	7	...	5	...	39
1908	13	...	7	...	52
1909	54	0	8	0	34	1	78	7	42	6
1910	41	1	2	0	414	3	90	4	30	8

It will be seen from the tables that no fewer than 708 cases of infectious disease were investigated by the Health Department during the year. Of these 577 were non-notifiable, being Measles 414, Whooping Cough 90, Chicken Pox, 41, Mumps 2, and Diarrhœa 30.

SMALL POX.

No case of this disease was notified during the year, but one case of illness in which there was some doubt, was under observation. It occurred in an adult, and proved to be Chicken Pox, but for a day or two caused no small amount of anxiety to the doctor in attendance from whom I learnt of the existence of the case, and went to see it.

I do not intend to discuss the question of vaccination in this report, but I feel it my duty to draw attention to the grave danger to the public health which exists through so many unvaccinated persons being in our midst, and the great number of infants who are not vaccinated owing to exemption certificates being so readily granted.

This district has suffered severely from Small Pox in the past and there is no doubt in the minds of medical men that a severe outbreak of this loathsome disease is certain to occur in the future, if the present conditions with respect to vaccination continue. Not only is the risk to life great, but the prospect of a large expenditure of the ratepayers money in combating an epidemic is also to be faced.

I take the following from Professor Osler's System of Medicine, where he deals with the famous Small Pox outbreak in Montreal in 1885. "For several years there had been no Small Pox in the city, and a large unprotected (by vaccination) population grew up amongst the French Canadians, many of whom were opposed to vaccination. On February 28th, a Pullman Car Conductor who had travelled from Chicago, where the disease had been slightly prevalent, was admitted into the Hotel Dieu, the Civic Small Pox Hospital being at the time closed. ... The disease spread like fire in dry grass, and within nine months there died in the City, from Small Pox, 3,164 persons."

Recently there have been one or two isolated cases of Small Pox in Lancashire, and shortly before Batley extended its boundaries a case occurred in Soothill.

DIPHTHERIA.

Whilst this is undoubtedly a contagious disease, the contagion being transmitted from the sick to the healthy, there is still a great deal to be discovered regarding the etiology of this disease. In rural districts the disease frequently has been observed to occur without any pre-existing case to which the outbreak could be traced. The contagion has been shown to have the power of lying dormant for a considerable time and renewing its activity periodically. For a long time Diphtheria was regarded as being more of a rural than an urban disease, but during the last fifteen years the mortality from it has increased in the large towns.

The disease particularly affects children between the ages of two and twelve years. There is no doubt that school attendance has a very great connection with outbreaks of the disease. Infection is spread from child to child by mild unrecognised cases getting into school. When Diphtheria is prevalent there is usually a large increase in the number of persons suffering from ordinary sore throats, which bacteriologically are not Diphtheritic. These persons seem to have the peculiarity of ultimately developing the infection in their throats, for on later bacteriological examination of the secretions of their throats the Diphtheria Bacillus is found, although at no time are the persons ill.

My experience has been that the child who suffers from chronic enlargement of the tonsils is the dangerous element, for there seems to be some peculiarity about these enlarged tonsils which provides a suitable nidus for the growth and developement of the Diphtheria Bacillus, the child itself is unaffected and not ill but infects others. I have often seen this during the last 14 years, and an illustration from a recent case in Batley is of interest.

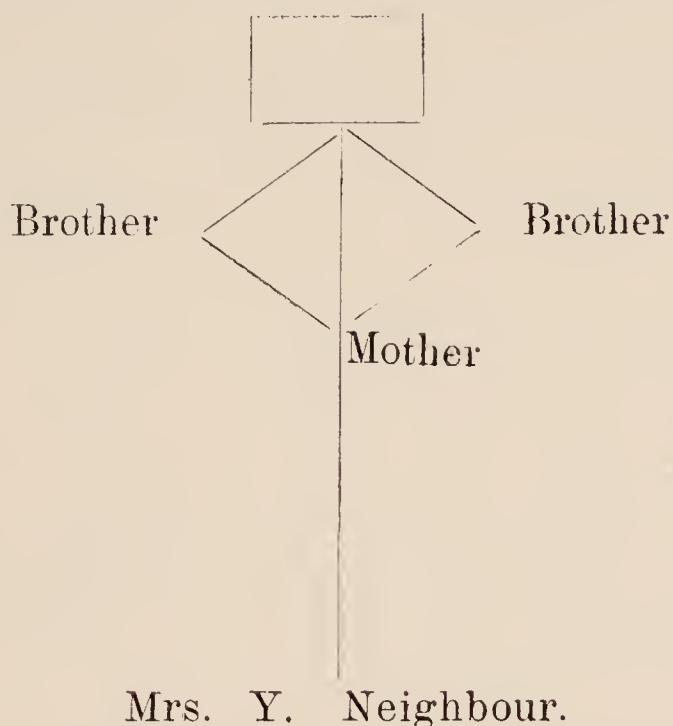
A case of Diphtheria was notified to me, the patient being a female, Mrs. Y., some 30 years of age. When notified she had been more or less ill for three weeks,

Nothing could be found wrong with the sanitation of the premises, and all the usual likely sources of infection showed nothing. Only the patient and her husband lived in the house, there being no children. I discovered, however, that this female was very friendly with Mrs. X who lived near and whose boy Z had had his tonsils removed by the family doctor some six weeks before. I proceeded to this house, and Mrs. X informed me that the boy whose tonsils had been removed had been affected for over two years with recurrent attacks of Tonsillitis. He had been troubled more than usual lately, and she called in her doctor who removed them. She told me that Mrs. Y was a great friend of hers, and had nursed the boy after the operation had been performed. The boy did not recover at all rapidly, and began to get palpitation of the heart and could not speak properly. Two other younger boys did not appear to be well about a fortnight after and had what the mother called a cold with slight hoarseness. Then she herself began with palpitation and felt unaccountably weak, but could only remember a slight soreness of the throat on one day. Shortly after, Mrs. Y was taken ill and ultimately a doctor was called in to see her who diagnosed Diphtheria, and I had Mrs. Y removed to the hospital. At this time Mrs. Y's condition was rather serious.

I saw the boy whose tonsils had been removed and found him suffering from paralysis of the soft palate, a frequent complication of Diphtheria. The matter was now perfectly clear. The boy with the enlarged tonsils had the bacilli in his throat when his tonsils were removed. He developed the disease as proved by post diphtheritic paralysis supervening, his two brothers were infected by him, also his mother, and Mrs. Y the neighbour, who had nursed him, caught the infection in a worse form than any of the others and was so ill in hospital that she nearly lost her life.

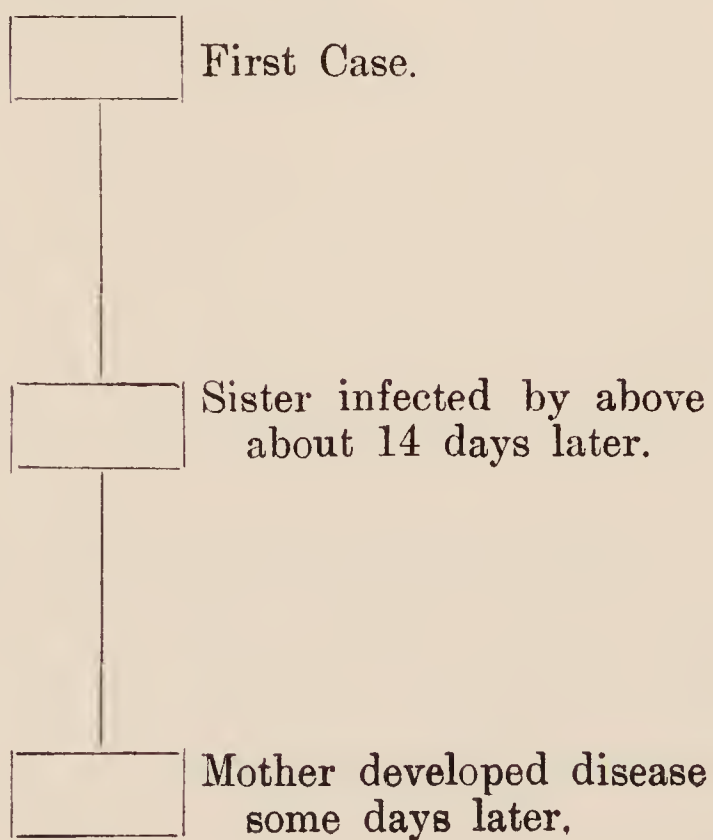
The mode of infection from this unrecognised case is seen clearly below.

Boy Z. Source of infection.



Another example of how an unrecognised case resulted in further infection is given below.

A certain child for some twelve months suffered from frequent throat trouble. The doctor advised removal of the enlarged tonsils which the child had had for a considerable period. This was done by him. Some weeks later this girl was taken ill again with throat symptoms. About a fortnight afterwards the sister became ill, and a few days after that the mother of both girls developed symptoms of throat affection. Five days later the doctor saw them along with myself, and Diphtheria being diagnosed, I arranged for the removal of the three patients to hospital the same day, where they remained for some five weeks.



During the year 1910, sixty cases of Diphtheria were notified, the average number of cases yearly for the preceding seventeen years being just over forty per annum.

The following are the age-groups of those attacked:—

0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10
1	0	2	1	4	27
10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	
16	5	2	2	0	

24 cases occurred in the North Ward, 18 in the East Ward, and 18 in the West Ward. No case occurred during the year in the Soothill Ward.

A number of these cases were extremely mild, and the doctors told me they frequently would have hesitated to call them Diphtheria had not positive evidence been obtained bacteriologically.

Some years ago, before bacteriological evidence was so readily resorted to, probably half these cases would never have been notified as Diphtheria but would have been looked upon clinically as ordinary sore throats. We have, therefore, got an increase in the notified cases, through more scientific methods being resorted to, than was the case before the bacteriology of Diphtheria was so well understood. This is most desirable from a public health point of view. Unfortunately persons without any medical training commenced a scare during the latter part of the year and I regularly heard most alarming reports, which were circulated in the town, about cases which were non-existent. Action of this kind does much harm, but I have seen it many times previously and have no doubt it will occur again.

Bacteriological outfits for swabbing the throat are kept at the Public Health Department, and handed to the medical men of the town on request. Almost all the cases notified were previously swabbed and the presence of the germ of Diphtheria demonstrated.

During the last four months of the year, 36 cases were notified in Batley, and comparing this with other districts in the West Riding of Yorkshire for the same period, one finds that in Goole with a population less than one half that of Batley, 43 cases were notified, whilst in Gomersal with a population at the last census of 3,580 there were 13 cases, in Handsworth (W. R. of Yorkshire) there were 22 cases, the population being 13,404, and in Dodworth, near Barnsley, with a population of 3,022 there were 14 cases.

SCHOOL CASES. 37 of the 60 cases occurred in connection with the schools, the disease affecting scholars at Park Road, Parish Church, Warwick Road, Purlwell, St. Mary's, Staincliffe Church, and Carlinghow Schools. Cases also were notified in connection with the Boy's and Girl's Grammar School. Four other cases occurred in connection with school children, residents of the Borough, three of whom attended Batley Carr Church School and one Birstall Roman Catholic School, which two schools are outside the Batley area.

It was necessary to frequently visit the affected schools, to see children at their homes who were contacts, to swab the throats of school children where necessary, sometimes in their homes, and frequently in the case of school children seen at the office of the Medical Officer.

Much work was done both by the School Nurse and the Medical Officer, the result being very gratifying, it being satisfactory that in a town where children are brought into such close contact as must be the case in Batley, only 37 cases occurred amongst school children at the time when the disease was so prevalent in various surrounding districts.

Many children who were what are known as contacts, and others who were carriers, were excluded from the various schools, these children appearing quite well but being capable of transmitting the disease in virulent form to others.

Of the 60 cases, seven proved fatal, the mortality being 11.6 per cent.

During the last four years the mortality in Batley was

1906	1907	1908	1909
<u>22.2</u>	<u>21.4</u>	<u>18.5</u>	<u>16.0</u>

so that it will be seen that 11.6 per cent, the mortality for 1910, is a considerable reduction. The mortality from the disease for England and Wales varies from 12 to 20 per cent. Gratifying as the Batley figures are, the mortality would have been less, had medical aid been obtained and thereby an opportunity given of Anti-toxin Serum being obtained and used earlier, as is shown by the particulars of the seven deaths.

Case No. 1. M.G. Aged 5. February 13th. Doctor first saw case February 11th. Removed to hospital same day. Tracheotomy performed. Died February 13th. Case very far advanced when doctor first sent for.

Case No. 2. G. P. Aged 3. October 8th. Medical Officer of Health was first notified through being communicated with by doctor in attendance, at 6-30 a.m. Case removed to hospital at once. Tracheotomy performed. Child died later in the day.

Case No. 3. E. S. Aged 7. October 10th. Patient died Sunday, October 9th, the Medical Officer of Health first receiving notice of the existence of the case on October 10th, the day following the death of the patient. This case was not sent to hospital.

Case No. 4. A. W. Aged 9 months. Died October 14th. Notification dated October 14th.

Case No. 5. G. R. L. Aged 5. November 9th. This child and another were taken ill, and the cases notified to the Medical Officer of Health on September 28th. They were both mild cases, and at the wish of the doctor in attendance remained at home. Recovery was uneventful and the house was disinfected on October 31st.

On the afternoon of November 9th, the child G. R. L. was suddenly siezed with symptoms of paralysis of the heart and expired before the doctor could reach the house. The doctor in attendance informed me that apparently the child had recovered and a swab taken from the throat of this child proved negative on October 29th.

Case No. 6. H. S. Aged 13. December 7th. Child taken ill on November 16th, but no doctor saw the case until November 28th. Notification received by Medical Officer of Health Nov. 29th. Patient removed to Hospital, November 29th, and died there on December 7th.

Case No. 7. L. A. Aged 8. December 24th. Patient taken ill on December 12th. Family had recently come to live in Batley. Doctor first called to case about midnight of December 20th. Notification received by Medical Officer of Health December 21st, and case removed to Hospital the same day. Tracheotomy performed. Death occurred December 24th.

It will be seen from the history of these deaths that the patients did not have early medical attention in some cases, and in others the disease had proved fatal before the notification was received by the Medical Officer of Health.

It cannot be too strongly urged upon the public generally the importance of calling in a medical man in the early stages. The germs of Diphtheria lodge on the mucous lining of the throat and nose and the surface of the tonsils. They generate a powerful poison, which is absorbed into the blood, and it is this which causes the alarming symptoms of the disease. When seen in the early stages and Diphtheria Anti-toxin administered, the mortality from the disease is considerably reduced. The Health Department of the City of Chicago has recently published some statistics which show that the death rate from Diphtheria has been reduced no

less than $73\frac{1}{2}$ per cent. in the 14 years, 1896 to 1909, when Anti-toxin has been regularly used, as compared with the 14 years, 1882 to 1895, before its use was ordinarily resorted to.

In the Hospitals of the Metropolitan Asylums Board, London, by the use of Anti-toxin the mortality has been reduced from just under 30 per cent., which it used to be, to about 9 per cent.

I extract the following from Goodall and Washbourn's "Manual of Infectious Diseases."

"It is very important to commence Anti-toxin treatment immediately the disease is recognised, for the earlier the remedy is used the better is the chance of recovery, and the less that of the occurrence of complications. Paralysis is hardly ever, and severe paralysis is never, seen in patients who are treated with Anti-toxin on the first two days of the disease.Anti-toxin should be given to any patient who is suffering from Diphtheria, however slight."

In Batley, on my recommendation, the Corporation has wisely decided that Anti-toxin shall be issued free on application to every medical man in the Borough. It would be well if householders would remember that whenever there are cases of Diphtheria about, all lumps in the neck, sore throats, croupy coughs, and the like are probably of Diphtheritic origin, and the doctor should be called in without delay.

As showing the remarkable tenacity with which the Klebs Loeffler Bacillus remains active, it may be of interest to state that on 31st January, 1910, a child, M. G., was sent into the Oakwell Hospital suffering from Diphtheria. This child was discharged on the 28th February, 1911, having been in hospital thirteen months. Many swabs were taken and examined, but each time the Diphtheria Bacillus was found to be present.

A copy of a leaflet distributed by the Public Health Department to every house where a case of Diphtheria occurs, is here introduced.

This Handbill should be kept for reference.

BOROUGH OF BATLEY.

DIPHTHERIA OR MEMBRANOUS CROUP.

Children from this house must not attend day or Sunday School until permission is given by the Medical Officer of Health.

All cases of "sore throat," "croupy cough," or "lumps in the neck," occurring in the household are probably diphtheritic and should be immediately reported to your own doctor.

Public Library Books must be taken to the Public Health Department, and no books borrowed until the house has been disinfected.

If treated at home the patient must be confined to one room, and **no one except the person in charge allowed to enter the room.** All unnecessary furniture should be removed from the sick room forthwith, and the floor and furniture should be frequently wiped with a damp cloth. **Fresh air** must be freely admitted, a fire being lighted if necessary.

Attendants should wear washable dresses, should wash their hands immediately after attending the sick person, and should always wash their hands and faces and change their shoes and outer clothes before going off duty.

No domestic animal should be allowed to enter the sick room.

A patient suffering from this disease is generally DANGEROUS TO OTHERS for a period of at least three weeks, and must not be allowed to mix with other people during that period, or while there is any sore throat, or any discharge from the ear or nose, or while diphtheria germs can be detected in the throat.

DISINFECTION.

1.—All soiled linen should be at once placed in a tub of water to which a handful of ordinary washing soda has been added, soaked for twelve hours, and then boiled in a copper. Materials which cannot be boiled should be soaked for one hour in liquid disinfectant, and then washed.

2.—Special cups, saucers and spoons should be used for the patient, and any spare food from the sick room destroyed.

3.—Discharges from ear, nose, or mouth should be received on a rag, which should be at once burnt, as also should any dust collected in the room.

4.—When the patient is free from infection, the Corporation undertakes the disinfection of the sick room, bedding etc., free of cost. The accompanying paper respecting disinfection should be returned to the Medical Officer of Health, when the patient is free from infection.

Disinfectants are supplied free on calling at the Public Health Department between the hours of 9 a.m. and 10 a.m.

G. H. PEARCE,

Medical Officer of Health.

PUBLIC HEALTH DEPARTMENT,

BATLEY.

A penalty of £5 is attached to the exposure of infected persons and things.

ERYSIPELAS.

24 cases were notified during the year.

The following are the age-groups attacked:—

0 to 1	5 to 10	10 to 20	20 to 30	30 to 40
<hr/> 1	<hr/> 2	<hr/> 1	<hr/> 1	<hr/> 3
	40 to 50	50 to 60	60 to 70	
	<hr/> 5	<hr/> 9	<hr/> 2	

Erysipelas is caused by a germ which sets up acute inflammation of the skin. The disease is less common since the introduction of antiseptics and improved sanitation. The sanitary conditions of the houses in which the cases occurred were investigated and defects dealt with.

Two of the cases proved fatal. One death taking place in a child eight months old, and the other being a female aged 29.

SCARLET FEVER.

35 cases of this disease were notified during 1910.

The following are the age-groups of those attacked:—

0 to 1	1 to 2	3 to 4	4 to 5
<hr/> 2	<hr/> 2	<hr/> 1	<hr/> 5
5 to 10	10 to 20	20 to 30	
<hr/> 19	<hr/> 5	<hr/> 1	

17 cases occurred in the North Ward, 15 in the East Ward, and 3 in the West Ward. No case occurred during the year in the Soothill Ward.

One death took place, the patient being an illegitimate child 19 months old, and the type of the disease, Malignant Scarlet Fever. The child was removed to the Hospital where he died two days after removal.

All the cases were mild with the above exception, the difficulty being to get hold of them, the disease usually being diagnosed when the children had commenced peeling, the

initial symptoms being so mild that no notice was taken by the parents. It is these mild cases which go unrecognised and which spread the disease broadcast.

The only matter of note respecting Scarlet Fever during the year is the history of five of the cases, all occurring in one household. About the middle of May, a certain family removed to Batley from a Lancashire town. Before removal, two of their children were taken to Hospital in that town, suffering from Scarlet Fever. The parents being anxious to remove, the hospital authorities allowed the two children to be discharged at the end of five weeks, and they were brought to Batley with the rest of the family. It appears on discharge, one had a running ear, and the other some soreness of the throat. Shortly afterwards, three of the other children in the house in Batley developed Scarlet Fever and were sent to the Oakwell Hospital, along with the two who had been discharged from the Hospital in the other town. They all remained there until recovery took place and it was safe for them to be discharged. There were two other upgrown children in the house who had already had the disease and a baby who fortunately escaped infection. It is reasonable to conclude that Batley should not have had these cases to add to its infectious diseases statistics.

One case of Scarlet Fever developed in a child, aged 6, who was a patient in the Batley and District Hospital. The source of infection could not be traced, but steps were taken to at once have the child removed to the Oakwell Hospital.

During the previous year, 122 cases of Scarlet Fever were notified, so that it will be seen the number for 1910, viz., 35, is a large decrease.

If the season is a dry one with little rain, Scarlet Fever appears to be more likely to prevail than when the season is damp. A coincidence is that where there is a high rate of Scarlet Fever there is a low rate of attack of Diphtheria.

Scarlet Fever prevails in long waves of fifteen to twenty years, with short waves every four to six years. We should, therefore, be able to look forward to a comparative freedom from the disease during the next two years if no extraordinary circumstances prevail.

A copy of a leaflet distributed by the Public Health Department to every house where a case of Scarlet Fever occurs is here introduced.

This Handbill should be kept for Reference.

BOROUGH OF BATLEY.

SCARLET FEVER or SCARLATINA.

Children from this house must not attend day or Sunday School until permission is given by the Medical Officer of Health.

All cases of "sore throat," "lumps in the neck," or of "peeling skin" occurring in the household are probably scarlatinal and should be immediately reported to your Medical Attendant. Suspicion should also be aroused by any sudden attack of illness, especially if beginning with vomiting.

Public Library Books must be taken to the Public Health Department, and no books borrowed until the house has been disinfected.

If treated at home the patient must be confined to one room, and **no one except the person in charge allowed to enter the room.** All unnecessary furniture should be removed from the sick room forthwith, and the floor and furniture should be frequently wiped with a damp cloth. **Fresh air** must be freely admitted, a fire being lighted if necessary.

Attendants should wear washable dresses, should wash their hands immediately after attending the sick person, and should always wash their hands and faces and change their shoes and outer clothes before going off duty.

No domestic animal should be allowed to enter the sick room.

No children should be allowed to visit the infected house.

A patient suffering from this disease is generally DANGEROUS TO OTHERS for six to eight weeks, and must not be allowed to mix with other people until the Medical Attendant certifies that there is no danger. There is risk of infection while there is any discharge from ear or nose, or while the throat remains sore or unhealthy,

DISINFECTION.

1.—All soiled linen should be at once placed in a tub of water to which a handful of ordinary washing soda has been added, soaked for twelve hours, and then boiled in a copper. Materials which cannot be boiled should be soaked for one hour in liquid disinfectant, and then washed.

2.—Special cups, saucers and spoons should be used for the patient, and any spare food from the sick room destroyed.

3.—Discharges from ear, nose, or mouth should be received on a rag, which should be at once burnt, as also should any dust collected in the room.

4.—During recovery the patient should have a warm bath every day, unless the doctor orders otherwise. The body should be freely lathered with soap, special precaution being taken to thoroughly cleanse the hair and scalp.

5.—When the patient is free from infection, the Corporation undertakes the disinfection of the sick room, bedding etc., free of cost. The accompanying paper respecting disinfection should be returned to the Medical Officer of Health, when the patient is free from infection.

Disinfectants are supplied free on calling at the Public Health Department between the hours of 9 a.m. and 10 a.m.

G. H. PEARCE,

Medical Officer of Health.

PUBLIC HEALTH DEPARTMENT,
BATLEY.

ENTERIC (TYPHOID) FEVER.

This disease is one of those which is entirely preventable. It should never be seen amongst us, and its presence is always the result of defective sanitation in some form. It is a specific disease dependent for its propagation upon the introduction into the human body of a specific virus, most probably the Eberth Gaffky Bacillus. As a rule, one attack confers immunity for the remainder of life. The disease is most prevalent in the late autumn. It may be contracted from water polluted with sewage, contaminated milk, and infected food. The disease is specially prevalent in districts where there are many privy middens and unpaved yards and courts. Polluted shell-fish is also a common cause of infection, more especially oysters, mussels, and cockles which are collected from tidal waters where the water is liable to pollution from sewage. It has been shown that the bacillus associated with this disease is capable of existing in sea water for many weeks. Much shell-fish is consumed in Batley, particularly cockles and mussels.

A study of the "Report of the Fishmonger's Company" which extends from December 1902 to June 1909, is of great interest. A history is given of the condition of shell-fish taken from 427 different beds in various parts of the British Isles, and the conclusions vary from "dangerously polluted," "decidedly polluted," "questionably clean," "passable," to "clean." Only a small proportion are certified as "clean."

Batley is particularly concerned with the connection between Typhoid Fever and insanitary conditions arising from the existence of privy middens. A glance at the figures given below shows the connection in a graphic manner. Until the year 1905, Batley was a privy midden town, there being a total of 3,674 privies and pail closets in the Borough.

The Corporation with a view to make the town more sanitary and reduce the heavy death rate, wisely resolved to take in hand the abolition of these structures and their replacement by modern sanitary water closets, the middens being also done away with and sanitary covered metal ash

bins installed in their place. The result even up to the present has much more than amply justified the steps taken. Instead of being a Typhoid and Diarrhœa infected town, as it was in former years, these diseases are being stamped out, and in a few years the inhabitants of the Borough will be able to look on Typhoid Fever, to a great extent, as a thing of the past.

Only 10 cases of the disease were notified during 1910, against 24 the previous year. A review of the number of notifications of Typhoid Fever since 1890 gives such figures as 139, 111, and 104 cases as the numbers in different years. The average number of cases of Typhoid Fever notified each year in the Borough during the periods 1890 to 1906—in which latter year steps were first taken to abolish the privy middens—is 61.

During 1910, 447 privies and 34 pail closets were abolished. These insanitary structures were replaced by 481 sanitary water closets.

At the end of 1910 there still existed in Batley 2,336 privies and 271 pail closets. In addition to this there are in the Soothill Ward, the new addition to the Borough, 735 privies and 22 pail closets. The total number of conversions still to be undertaken is, therefore, 3,364, so that there is still much work for at least seven or eight years if only the present rate of progress is continued.

The Sanitary Committee have every reason to be gratified with the result of their work in this direction. There may be isolated cases in which hardship is likely to accrue, and every sympathy is felt with those persons. This question, however, is one in which sentiment must take a secondary place. It is a fact, proved over and over again, that Typhoid Fever and Diarrhœa exist in towns in proportion to the number of privies and privy middens. If there are many of these structures, there are many cases of these diseases. For the benefit of the health of the community at large it is necessary that steps should be taken to safeguard the health of the town. Even if in isolated cases one person may have to suffer there are many who benefit, and I venture to submit that

when the lives and the health of the inhabitants of this town are in the balance, which is undoubtedly the case as recent statistics in Batley alone, apart from other towns, bear out, no relaxation of the present good work should take place.

I am glad to say the Sanitary Committee are thoroughly of this opinion and are continuing to deal most energetically with insanitary property, and it is only fair to add, that the great majority of the property owners readily fall in with the Committee's requirements.

I give particulars of the ten cases of Enteric Fever which were notified during 1910. Seven of the cases occurred in the North Ward and three in the East Ward.

Case No. 1. E. A. Aged 31. January 7th. Privy middens, unpaved yard, fowls kept which root up the contents of the middens which had been overflowing previously to the patient being attacked. Removed to Hospital. Recovered.

Case No. 2. W. S. Aged 15. March 11th. Privy midden. Drainage defective. Removed to Hospital. Recovered.

Case No. 3. H. B. Aged 17. June 30th. Privy midden. Offensive heaps of manure about, numbers of pigs kept close to house. Removed to Hospital. Recovered but died from Heart Failure some months afterwards.

Case No. 4. Mrs. S. Aged 40. July 18th. Trough Closets. Removed to Hospital. Recovered.

Case No. 5. J. W. A. Aged 32. August 10th. Privy. Recently converted to water closet. Removed to Hospital. Died.

Cases Nos. 6 and 7. S. S. and A. S. Aged 20 and 7. December 10th. Trough Closets. Both removed to Hospital. Recovered. Both lived in same house as case number 4, who is the mother of these two.

All these last four patients resided in the Beck Lane Area, and I give an extract from my report to the Sanitary Committee of 27th July, 1910, which deals with the matter.

“ TYPHOID FEVER IN BECK LANE. A case of this disease was notified on 18th July, the patient being the mother of a family, aged about 40. The yard behind the kitchen door of this house contains trough closets flushed by a man provided by the Corporation. There is a dry ash place built of brick with a door. On this door is pasted a notice warning persons about depositing vegetable refuse in ashplaces. Notwithstanding this, a large amount of vegetable refuse was in the ash place, and the yard in a disgusting state it being difficult to walk in it without treading in filth and refuse. The persons using the ashplace throw most of their refuse on the yard surface, and many of them instead of using the closets pass their evacuations on the yard surface. I have several times been in this yard and remarked about it, only three weeks ago I was there and in conversation with the very person who is now suffering from the disease. I said I should not be surprised if Typhoid Fever broke out there. There is no doubt the disease has been contracted in the yard owing to the habits of the persons living in the surrounding houses. It is difficult to know what to do in such cases, for in order to summons it would be necessary to have a man watching regularly and catching persons in the act. I believe the landlord, or agent, has previously been communicated with without success.”

Case No. 8. C. W. Aged 21. August 30th.

Case No. 9. G. W. W. Aged 19. September 2nd.

Both the above were members of the Territorial Force and caught the infection whilst in camp in the Isle of Man. Both were sent to Hospital, and both recovered.

Case No. 10. W. M. Aged 54. Case Notified September 14th. Patient was too ill to be removed and died on September 15th, the day following. There was some doubt about the diagnosis of this case, and it is not absolutely certain that it was a case of Enteric Fever. Widal's Serum Test was not resorted to.

A copy of a leaflet distributed by the Public Health Department to every house where a case of Typhoid Fever occurs, is here introduced.

This Handbill should be kept for Reference.

BOROUGH OF BATLEY.

TYPHOID (ENTERIC) FEVER.

All cases of "diarrhœa," "severe headache," or "feverishness" occurring in the household should be immediately reported to your Medical Attendant.

Public Library Books must be taken to the Public Health Department, and no books borrowed until the house has been disinfected.

If treated at home the patient must be confined to one room, and **no one except the person in charge allowed to enter the room.** All unnecessary furniture should be removed from the sick room forthwith, and the floor and furniture should be frequently wiped with a damp cloth. **Fresh air** must be freely admitted, a fire being lighted if necessary.

Attendants should wear washable dresses, and should always wash their hands and faces and change their shoes and outer clothes before going off duty. Scrupulous cleanliness is essential. Nurses should keep their nails short, and should scrub their hands and disinfect them immediately after attending the patient.

No domestic animal should be allowed to enter the sick room.

A patient suffering from this disease is generally DANGEROUS TO OTHERS for a period of a fortnight after return to ordinary food.

DISINFECTION.

1.—All soiled linen should be at once placed in a tub of water to which a handful of ordinary washing soda has been added, soaked for twelve hours, and then boiled in a

copper. Materials which cannot be boiled should be soaked for one hour in liquid disinfectant, and then washed.

2.—Special cups, saucers and spoons should be used for the patient, and any spare food from the sick room destroyed.

3.—Everything passing from the patient should be received into a mixture of water and disinfectant, sufficient being used to completely cover it, and be allowed to stand for half-an-hour before being thrown away, the vessel being covered with a cloth soaked in the disinfectant. Nothing coming from the patients must be thrown into the ash-bin, or upon the surface of the soil, or into the drains, without disinfection.

4.—Discharges from ear, nose or mouth should be received on a rag, which should be at once burnt, as also should any dust collected in the room.

5.—When the patient is free from infection, the Corporation undertakes the disinfection of the sick room, bedding etc., free of cost. The accompanying paper respecting disinfection should be returned to the Medical Officer of Health, when the patient is free from infection.

Disinfectants are supplied free on calling at the Public Health Department between the hours of 9 a.m. and 10 a.m.

G. H. PEARCE,

Medical Officer of Health.

PUBLIC HEALTH DEPARTMENT,
BATLEY.

A penalty of £5 is attached to the exposure of infected persons and things.

PUERPERAL FEVER.

Two cases of this disease were notified during the year. Both proved fatal.

One of the cases occurred in the practice of a midwife.

There are 13 registered midwives practising in the district, and during the year they attended amongst them between 150 and 200 births. None of these midwives are

qualified by having had a Maternity Hospital training and having passed the examination of the Central Midwives Board.

The supervision of these midwives is carried out by the Medical Officer's Department of the County Council. The midwives are visited at certain intervals, and their books, bags, clothing, &c., are inspected. It would be an advantage if the County Council delegated their powers in such areas as this Borough. At the most there must be intervals between the inspections, whereas if the Medical Officer of each Borough had the supervision it would be possible to see the midwives frequently. The Health Visitor has several times reported want of knowledge on the part of midwives respecting the proper method of dealing with children who are prematurely born. The usual practice adopted by the Batley midwives is to bath and dress these children in precisely the same way as full time children are dealt with, whereas every trained nurse is fully aware that this treatment will probably cause the child's death unless the child be exceptionally strong. The practice also exists amongst some of the midwives of squeezing the child's head into shape after birth, and also the abominable practice of squeezing the baby's nipples, which frequently results in the formation of abscesses in the child's breast, apart from unnecessary torture being inflicted.

MEASLES.

During most of the year, this disease was epidemic in Batley, resulting in the closure of several schools as below.

Warwick Road Infants School, 8th March, 1910, to 4th April, 1910.

Mill Lane Infants School, 23rd May, 1910, to 6th June, 1910.

Mill Lane Mixed School, do. do.

Purlwell Infants School, 25th May, 1910, to 8th June, 1910.

Gregory Street Infants School, 27th September, 1910, to 17th October, 1910.

No less than 414 cases became known to the Health Department, chiefly through the agency of the Head Teachers in the various schools. Many other cases were prevalent which were not brought to light on account of Measles not being a notifiable disease.

Three deaths occurred, all being under five years of age.

The contagion is given off from the secretions of the nose, throat, lungs, and skin, of persons suffering from the disease. Clothing also retains the infection. The catarrhal stage preceding the eruption is most infectious, and this is one of the reasons why epidemics of Measles are so difficult to control. Children may be infectious for two or three days before they fall victims to Measles, and during this period are capable of spreading the disease amongst their school fellows. Measles is very fatal to young children under five chiefly owing to attacks of Pneumonia which follow.

The death rate in Measles is always considerably higher in poor houses where overcrowding may occur. Well fed and well housed children usually make a good recovery.

Epidemics of Measles tend to recur at intervals of from two to four years.

During the last year many children have become infected through playing with others who are in an infectious condition, and whose parents will not keep them in the house. It seems impossible to get parents to realise what a serious disease Measles actually is.

In Batley, all children suffering from Measles are excluded from school until free from infection and until after the house has been disinfected. All children who are not themselves ill are also excluded from school unless they are over seven years of age and have themselves already suffered from the disease. In this latter case they are allowed to attend school.

During the year several parents were ordered to appear before the Sanitary Committee, and severely admonished because of their neglect to carry out the instructions given them respecting the keeping apart of their children from others, until all danger of infection was past. Not only is this neglect a danger to health, but epidemics of Measles seriously affect school attendance and consequently result in loss of grant with an accompanying drain to the ratepayer's pockets.

A copy of a leaflet is here given which is distributed at the houses of all persons where Measles is known to occur.

This Handbill should be kept for Reference.

BOROUGH OF BATLEY.

MEASLES.

Measles is one of the most fatal diseases of children. It is also extremely catching. Most deaths may be prevented by careful nursing.

To assist recovery of patient.

In every case seek medical advice.

Most deaths are due to children being exposed to unhealthy conditions while suffering from measles. Measles patients should be warmly clad, and kept in a **warm but well ventilated** room until they have quite recovered. The whole body, including arms and legs, should be clothed in flannel. Remember that pure air is as necessary as warmth. The air of a dirty, stuffy room poisons the lungs, and is more dangerous than cold or even draughts.

To prevent spread.

Separate the patient from all other children for at least three weeks after the appearance of the rash.

Measles usually begins with sneezing, coughing, running at the eyes and nose. All colds should therefore be looked upon with suspicion when Measles is prevalent. Keep apart any child so suffering for four days, when, if the disease is measles, the rash will have appeared.

When the last case has recovered, cleanse the sick room by washing everything you can with soap and hot water; what you cannot wash should be aired outside. Keep the windows freely open, and take care that the sick child's clothes are washed before return to school.

The Corporation undertake the disinfection of the sick room, bedding, etc., free of cost.

Other children who have not previously had the disease must be kept at home for at least three weeks from the appearance of the rash.

Those who have already had Measles and are over seven years of age, may be allowed to attend the Boys' and Girls' Schools, but not the Infants' School.

G. H. PEARCE,

Medical Officer of Health.

PUBLIC HEALTH DEPARTMENT,
BATLEY.

A penalty of £5 is attached to the exposure of infected persons and things.

WHOOPING COUGH.

In common with Measles there were many cases of Whooping Cough during 1910. The Health Department became aware of the existence of 90, but, as in the case of Measles the information was gleaned from the Head Teachers and Attendance Officers, and there were a number of other cases which were not known to us.

Infants and young children are particularly liable to this disease and comparatively few escape attack. Forty per cent. of the mortality from Whooping Cough occurs in the first year, thirty per cent. in the second, fifteen per cent. in the third, and six per cent in the fourth. In the first two years of life the proportion of deaths to attacks is about ten per cent. Whooping Cough is the most fatal of all the infectious complaints of childhood under five years. The disease occurs in regularly recurring epidemics every few years.

Four deaths were caused by it during the year, all being young children, two being under one year.

A special leaflet was printed for distribution dealing with Whooping Cough, a copy being here appended.

This Handbill should be kept for Reference.

BOROUGH OF BATLEY.

WHOOPING COUGH.

Whooping Cough is one of the most fatal diseases of children. It is also catching. Most deaths may be prevented by careful nursing.

To assist recovery of patient.

In every case seek medical advice.

Most deaths are due to children being exposed to unhealthy conditions while suffering from Whooping Cough. Patients should be warmly clad, and kept in a **warm but well ventilated** room for at least six weeks. The whole body, including arms and legs, should be clothed in flannel. Remember that pure air is as necessary as warmth. The air of a dirty, stuffy room poisons the lungs, and is more dangerous than cold or even draughts.

To prevent spread.

Separate the patient from all other children for as long as the whoop continues, and not less than five weeks from the commencement of the whooping. Children will not be allowed to return to school until they are medically certified as free from infection.

Whooping Cough usually begins like an ordinary feverish cold, and is infectious from the start. All colds should therefore be looked upon with suspicion when Whooping Cough is prevalent.

When the last case has recovered, cleanse the sick room by washing everything you can with soap and hot water; what you cannot wash should be aired outside. Keep the windows freely open, and take care that the sick child's clothes are washed before return to school.

The Corporation undertake the disinfection of the sick room, bedding, etc., free of cost.

Those who have already had Whooping Cough and are over seven years of age, may be allowed to attend School.

G. H. PEARCE,

Medical Officer of Health.

PUBLIC HEALTH DEPARTMENT,
BATLEY.

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ZYMOTIC DIARRHŒA or ZYMOTIC ENTERITIS.

Another name for this disease is Epidemic Diarrhœa. Infants and young children are not the only persons attacked, many older persons suffering, although the deaths mostly take place amongst infants. A peculiarity is that although so very fatal in the case of young children, the disease is practically never seen except during the period June to October. Isolated cases may occur in June, rapidly increasing in number in July, the maximum being reached during the first week in August, rapidly falling again throughout September and October.

A study of the report of Dr. Ballard on this disease presented to the Local Government Board is profitable. Dr. Ballard gives the following amongst other conclusions:—

Soil. Loose porous soil is most conducive to mortality from diarrhœa particularly if coupled with organic fouling of the earth. Diarrhœa is prevalent upon sites such as “made soil” or on ground polluted by drain or cesspool leakage.

Social Position. The diarrhœal prevalence and death rate are notoriously greatest amongst the very poor.

Want of cleanliness has a similar influence.

Foul air from sewers and cesspools favours the disease.

Accumulations of filth greatly favour the disease.

Want of ventilation and light are particularly conducive to diarrhœal mortality.

Overcrowding, Back-to-Back Houses, Dark Courts, Alleys, and Streets, are especially associated with the disease.

Density of buildings upon an area irrespective of density of population increases the tendency to diarrhœa.

Food when contaminated by flies, or in some other manner, is an efficient cause of the malady.

Bottle feeding of infants. In this connection the mortality is very high, breast fed infants being remarkably exempt.

Maternal neglect conduces to much infant mortality from the disease.

Occupation of females from home, by conducing to neglect and artificial feeding of infants, promotes diarrhœal mortality.

Dr. Ballard infers "that the essential cause of epidemic diarrhœa resides ordinarily in the superficial layers of the earth where it is intimately associated with the life process of some micro organism not yet isolated."

"That from food and from organic matter in certain soils the organism can manufacture a virulent chemical poison which is the material cause of epidemic diarrhœa."

The prevalence of this disease in any town is an index to the sanitary state of such town, and the prevention resolves itself into vigorous sanitary measures being pursued. All insanitary areas should be made sanitary, organic pollution of the soil by means of privy middens, and the emptying of such should be stopped by abolishing the privy middens. Streets should be watered and cleansed regularly and frequently, no house should be built on made soil, the exclusion of soil air from houses, and particularly the proper storage of all food and milk in properly ventilated larders, and especially its protection from pollution by flies.

The Sanitary Committee of this Borough realises this and is actively carrying on work on the above lines. The result will certainly be a diminution in the prevalence of diarrhœal diseases.

During the year, on the advice of the Medical Officer of Health, the Committee called upon all horsekeepers and cowkeepers to remove all accumulations of manure during the period from May to the end of August periodically, and in no case was an accumulation to remain for a longer period than seven days. The object of this was to prevent the hatching of the eggs of flies which are deposited in manure heaps. If the plague of flies could be lessened the liability to food pollution would decrease. Some slight opposition on the part of the persons affected was experienced, but the result of the Committee's order was undoubtedly a diminution of the number of flies in those parts of the town most thickly congested. Cases of Zymotic Diarrhœa are always associated with houses where flies are swarming, and if the breeding places of the flies are attacked it is reasonable to assume that more benefit will result than in dealing with the flies after they are hatched. It is to be hoped the Corporation will pursue the same policy in the present year, and it would be desirable to have the period of removal of manure extended to the end of September. A number of enquiries were received from other towns, and I am glad to be able to state that the example of Batley was copied elsewhere in several instances.

Stamped addressed postcards were sent out to the various doctors in the town, asking them to notify the occurrence of any cases of Zymotic Enteritis occurring in their practice, with a view to the Health Visitor regularly visiting the home of the child in order to see that the instructions given by the doctor in attendance were properly carried out. As a result three doctors reported cases. The total number of children suffering from the disease which became known to the Health Department was '30, against 44 the previous year.

Eight deaths were caused by Zymotic Enteritis, the particulars of which I give.

DEATHS FROM ZYMOTIC ENTERITIS.

Name	Age.	Ward.	Type of house.	No. of rooms.	No of inmates.	Privy & Ashpit.	Employment of Mother.	Method of feeding.
E.G.	6 months	E.	B to B	4	3	Yes	Weaver	Artificial
M.S.	10 „	N.	B to B	2	4	Yes	Home	Artificial
F.W.	5 „	N.	B to B	2	4	Yes	Home	Artificial
R.M.S.	5 „	E.	B to B	4	2	W.C.	Home	Partly Artificial
F.D.	5 „	E.	B to B	2	4	Yes	Home	Partly Artificial
E.B.	4 „	N.	B to B	2	2	Yes	Weaver	Tinned Milk
H.S.	4 „	N.	B to B	3	5	Yes	Weaver	Artificial
E.H.	3 „	E.	B to B	2	6	Yes	Home	Artificial

A noticeable feature is the fact that artificial feeding was resorted to wholly or in part in every death, and a privy was connected with every house but one, and in this solitary case privies were near the house and the W. C. had recently replaced a privy.

A leaflet distributed in cases of this disease here follows :

This Handbill should be kept for Reference.

BOROUGH OF BATLEY

SUMMER DIARRHŒA.

This disease is most fatal, especially to children under one year of age, in August, September and October. In all cases medical advice should be obtained without delay.

As the disease is introduced into the body principally by food, no food should be eaten except what is perfectly fresh.

Special attention should be given to the Milk for children.

It should not be kept in the house for more than twelve hours.

It should be boiled shortly before being given to the child.

It should be kept in a cool, well-ventilated place, in vessels that have been well cleaned and scalded.

*The feeding bottle should be scalded and carefully cleansed each time it is used. A boat-shaped bottle with a reversible teat and without tubing should be used.

All houses should be kept clean and well ventilated. The windows and doors should be kept open as much as possible. The floors of the rooms should be scrubbed with soap and water at frequent intervals, and the walls of closets, passages and cellars should be limewashed frequently. Closet pans should always be kept clean, and back yards be frequently swilled with water where possible.

Animal and Vegetable Refuse should be burned in the kitchen grate instead of being put into the Dustbin. See that the Ashbin is regularly emptied.

Nuisances should be reported at the Public Health Department at once.

G. H. PEARCE,

Medical Officer of Health.

PUBLIC HEALTH DEPARTMENT,
BATLEY.

* For further particulars consult the pamphlet on Infant Feeding, which can be obtained free at the Public Health Department.

TUBERCULOSIS.

39 deaths were certified during the year as being caused by some form of Tuberculosis. 27 of these deaths were caused by Phthisis (Consumption of the lungs), and the 12 other deaths were due to Tuberculosis affecting some other part of the body.

Deaths from Tuberculosis other than Phthisis.

Sex.	Age.	Cause of death.
M	3 months	Tuberculous Meningitis.
F	6 „	Tuberculous Meningitis.
F	1½ Years	Tuberculous Meningitis.
M	2 „	Tuberculous Meningitis.
M	3 „	Tuberculous Meningitis.
M	11 „	Tuberculous Meningitis.
F	2 months	Tuberculous Peritonitis.
M	21 years	Tuberculous Peritonitis.
M	37 „	Tuberculous Peritonitis.
F	8 months	Tuberculous Enteritis.
F	15 „	Tuberculous ulceration of bowels.
M	22 „	Abdominal Tuberculosis.

It will be seen that 75% of these deaths were in children three years and under. The great probability is that in such cases the Tubercle Bacillus is introduced into the bodies of these children with their food.

Of the 27 deaths from Consumption of the lungs, 7 of the patients were aged between 15 and 25, 18 were between 25 and 65, and two were beyond 65.

The following table gives the number of deaths from all forms of Tuberculosis since the year 1900, together with the death rates from Phthisis and other Tubercular Diseases.

Year.	Deaths from Phthisis.	Phthisis Death rate.	Deaths from other Tubercular Diseases.	Death rate from other Tubercular Diseases.	Total Death rate from all forms of Tuberculosis.
1900	50	1.7	14	0.4	2.1
1901	33	1.1	17	0.5	1.6
1902	24	0.8	10	0.3	1.1
1903	36	1.2	26	0.8	2.0
1904	33	1.1	29	0.9	2.0
1905	34	1.1	27	0.8	1.9
1906	26	0.8	15	0.5	1.3
1907	33	1.1	15	0.4	1.5
1908	33	1.1	21	0.6	1.7
1909	29	0.9	24	0.7	1.6
1910	27	0.7	12	0.3	1.0

In England and Wales upwards of 60,000 persons die each year from Tuberculosis. The mortality from Tuberculosis in this country is nearly one-third more than of all the Infectious Fevers and Diphtheria added together. In the face of these facts it is apparent that something should be done in order to decrease this tremendous waste of life, more especially when it is to be remembered that Tuberculosis is not hereditary, but an acquired infectious disease from which no person ever ought to suffer and which it is quite possible to stamp out entirely, provided proper means are adopted. An encouraging fact is that throughout the country a movement is at present being made to grapple with this scourge.

Dr. Nathan Raw, of Liverpool, has ascertained that out of 4,000 consumptive paupers under his care, 60 per cent.

became paupers because they were Phthisical, and not Phthisical because they were poor. Hence it is seen that the disease is very costly to the nation.

It has been computed that Consumption alone costs the ratepayers of this country over £1,000,000 per annum.

The germ of Consumption may gain access to the body by means of milk and the milk products (butter, cheese, &c.) of Tuberculous cows.

Most persons are familiar with the foul state of many of the cowsheds both in the towns and in the country.

Dr. Hope, of Liverpool, has shown that in samples of milk taken from cows kept in cowsheds in the town, 2.8 per cent. were Tuberculous, whilst in samples taken from country cowsheds 29.1 per cent. were found Tuberculous.

The milk of a Tuberculous mother may infect her infant.

Tuberculosis is a very common disease of cattle and pigs, and hence persons eating the flesh of animals which have suffered from this disease are liable to become infected.

The expectoration of persons suffering from the disease becoming dried may be blown about, and persons breathing this dust may contract the disease. Spitting in the streets or in any public place is prohibited in America, and should be the same everywhere in this country. In some towns brass letters are inserted into the paving stones, bearing the words "Spitting not allowed." Overcrowded dwellings, defective ventilation, dirt, and want of sunlight are very potent factors in disseminating Tuberculosis, the germ thriving in such places, whereas exposure to sunlight will kill it. Excessive consumption of alcohol is a powerful predisposing cause of Consumption.

So far as checking the spread of the disease is concerned it is obvious that to prevent milk from infected cows being sold there should be efficient supervision of dairy cows in the cowsheds, together with the application of the Tuberculin Test by a qualified Veterinary Surgeon, which readily demonstrates whether an animal is, or is not, Tuberculous.

It seems remarkable that although many persons are aware of the danger of drinking Tuberculous milk and the liability of dairy cows to become Tuberculous, they are quite content to continue drinking the milk and unconcerned about any means proposed whereby it may be ensured that there are no Tuberculous cows in a herd which is giving milk, and such milk being sold. The same remarks apply to the inspection of meat. It should be compulsory throughout the country that all animals slaughtered for food should be slaughtered in a Public Abattoir and the meat examined by a competent Meat Inspector before such meat is exposed for sale. By a competent Meat Inspector is meant in this case an Inspector of Nuisances who also possesses the Meat Inspector's Certificate of either the Royal Sanitary Institute or some similar body, in addition to his certificate as Nuisance Inspector. I take it that no person would willingly eat the flesh of an animal which was Tubercular, apart altogether from the danger to health. The logical sequence, therefore, is, that in order that the public should be protected, all meat should be inspected. If all butchers insisted that when they bought a beast from the farmer they should have a warranty that the beast was free from Tuberculosis, the butchers would be protected. As for the farmer it is perfectly easy for him to have the Tuberculin Test applied to his animals, and this would readily prove whether any animal was Tubercular. Of course this could not be done by one district alone, or by a combination of districts. It would have to be done nationally and would require action by Parliament.

Bad housing is a cause of Tuberculosis which is to a greater or lesser extent receiving the attention of the sanitary authorities throughout the country, and there is no doubt much benefit will result through the passing of the Housing, Town Planning, &c. Act, 1909, and in particular the issue of the recent Local Government Board Order of September last, dealing with the regular and systematic inspection of the dwelling houses within a district.

There still remains the question as to what is to be done with respect to administrative measures for controlling the disease apart from the foregoing. First there should be

compulsory notification. Voluntary notification is a failure. The latter has been adopted in Batley since 1908, and during 1910 various doctors voluntarily notified 20 cases. In some instances the notification certificate was received after the patient's death, and the Public Health Department was already aware of there having been a case of Consumption through the Registrar's death returns. In some other cases the doctors and the patient's families did not wish any action to be taken by this Department. In others no notification of the disease was sent in.

The Health Visitor deals with all cases of Consumption which are notified. She visits the patient (unless requested not to), advises as to the means to be adopted to safeguard the health of other persons in the house, instructs the patient how to dispose of the expectoration and lends a pocket spittoon which is the property of the Corporation and is returnable, in addition to leaving the leaflet which is given at the end of this section. Visits are paid as often as desirable.

TUBERCULOSIS DISPENSARIES are being established in some districts. Here patients come and have their sputum examined for the bacilli, they are provided with pocket spittoons, disinfectants, leaflets, &c., and advice is given as to precautions to be taken by them. This is already being done in Batley by the Health Visitor, and sputum is also occasionally examined by the Medical Officer of Health at the Public Health Department. Tuberculin is administered to the patients in some of these Tuberculosis Dispensaries. The value of this agent is not yet definitely settled, some observers, however, report having had very good results. Dr. Wilkinson at the Tuberculin Dispensary at Kennington Road, London, claims success for the Tuberculin treatment in 80 per cent. of cases treated from 1902 to 1908. Other observers are not at all enthusiastic.

There remains Sanatorium treatment. We know that one of the greatest causes of Consumption is the bad housing conditions under which many of the working class population of this country have to live. We also know that whatever benefit is gained at a sanatorium is liable to be lost if the

patient has to return to an insanitary house on his discharge. Sanatorium treatment does not remove the numerous breeding places of Consumption, and is therefore a beginning made at the wrong end. We wait until the patient has contracted the disease and then try to cure him instead of attacking the origin of the infection and thereby preventing the disease being contracted in the first instance. In my opinion, money spent in trying to cure the disease would be laid out to much better advantage if it were spent in abolishing the various agents which help to cause it. Not the least of these is dark, damp, illventilated property. All cases of Consumption of the lungs should not be kept together. What are known as open cases, where the disease is in an advanced stage, should be kept to themselves and not be allowed to mix with those in the early stages. The removal of these persons from their homes to a Sanatorium is of benefit to the community in taking away a focus of infection, although Sanatorium treatment is of no benefit to the patients themselves so far as a cure is concerned. The early cases are those where Sanatorium treatment is most effective, a large percentage of these cases being permanently cured.

During the latter part of the year the County Council called a conference of local authorities respecting the proposed construction of a Sanatorium for the West Riding of Yorkshire, to contain 100 beds. One bed to every 5,000 of the population is looked upon as a likely number, so it will be seen that 100 beds for a population of 1,551,877, which is the estimated population of the West Riding of Yorkshire to middle of 1909, would mean that patients would have to wait so long for their turn for admission to come, that the Sanatorium would be of little use to Batley.

In August last I was instructed by the Sanitary Committee to submit a report on the Sanatorium treatment of Consumption as far as is applicable to Batley. This report was presented to the Committee in September, and is here appended.

PUBLIC HEALTH DEPARTMENT,
TOWN HALL,
BATLEY.

27th September, 1910.

TO THE CHAIRMAN AND MEMBERS OF THE SANITARY COMMITTEE.
Sanatorium treatment of Consumption.

I was instructed at the last Sanitary Committee Meeting in August to go into this matter with a view to something being done in Batley, if it is practicable. I do not intend at present to deal with the question in detail but purely on broad lines, and to confine my remarks entirely to the treatment of cases of Consumption of the lungs, without reference to the other forms of Tuberculosis.

Last year in Batley 29 persons died from Consumption. It is reasonable to assume that there are quite three times as many persons afflicted with this disease in a town of this size as there are deaths from the disease. Assuming this, which I am certain is not above the mark, there must be at the present time somewhere in the neighbourhood of 100 persons suffering from Consumption in a more or less advanced degree.

Sanatorium treatment offers every chance of a cure if the cases can be got hold of in the early stages, and in those cases where the disease has got too deep a hold, advantage is obtained by the patient in having every attention such as is received in a Sanatorium. A greater advantage is gained by the patient, and his or her relations, being educated with respect to the infectious nature of the disease, and also the community at large benefit greatly in having a focus of infection removed from their midst.

As a commencement I would suggest that if anything is done only male cases should be taken, and only those which are in the early stages and hence present a reasonable prospect of being restored to health and able to return to their work and become wage earners again.

A fortnight ago whilst attending the Conference of Medical Officers of Health at Brighton, I visited the Brighton

Sanatorium. Here one of the empty pavilions at the Infectious Diseases Hospital is used as a Sanatorium for Consumptives. During the last eight years there have been 1,200 admissions of Consumptives of all ages to the Infectious Diseases Hospital, and in no single instance had another disease been contracted. After a consideration of the experience of Brighton, any Local Authority might admit Consumptives into an empty block of their Infectious Diseases Hospital without fear of any risk to the patients, provided the administration was efficient. Early cases are kept for long periods, six months to a year, in hope of cure. As to cost it was found that with 25 patients in the wards, the cost per patient was about 25s. per week.

The drawback to the adoption of the Brighton method in Batley would be the fact that there is no spare accommodation at the Oakwell Hospital. It would be inadvisable to admit any cases to the unoccupied Small Pox buildings, for there is every probability that sooner or later we shall be visited with an epidemic of Small Pox, owing to the large number of unvaccinated persons in this district, and of course the Small Pox Hospital would be required at a moments notice. For the present therefore the idea of treating Consumptives at Oakwell is not feasible.

An interesting experiment has been going on for some time in Rotherham in connection with the treatment of Consumptives, and here I think is a scheme which is inexpensive and which might easily be adopted. A wooden shelter has been erected in a remote corner of the Infectious Hospital Grounds at a cost of only £150. Seven patients have been admitted. The purpose in view is to treat cases for a lengthened period in a well constructed wooden shelter, which faces south west. Up to the present the results have far exceeded expectations. All have materially increased in weight and their physical condition has improved. They have been put on the right road to recovery and have been taught how to regulate their lives so as to avoid risk of infection to their relations and friends when they go home for a whole day holiday about once weekly. The shelter has sleeping accommodation for 12 male patients and is provided with

lavatories and water closets. The cost per patient per week is very low, namely 15s., this including capital charges, maintenance, medical attendance, and miscellaneous expenses. The cooking and nursing are supplied from the administration block of the Isolation Hospital. Patients are sent also by the Poor Law, and for these the Corporation receive £2 per week per patient, payable by the Guardians. The average length of stay of patients has been 86 days, and the increase in weight has ranged from 36½ lbs. to 1½ lbs.

Without expending any money in buildings which are not necessary we could at once utilise the present Old Small Pox Hospital at White Lee. Here is a place admirably suited for the purpose, and if good results can be obtained in Rotherham in their own atmosphere, which is not a good one, the chances of success are quite as great, if not more so, in Batley.

One is aware that it is desirable that consumptives should be out of the smoke zone. If this is not possible under existing circumstances it is justifiable to make use of the best methods conveniently available and patients would do much better in the open air if located even at White Lee, which is one of the least smoke affected portions of the town and is fairly elevated, than if they remained in their own homes. The danger of their spreading the disease to others would also be reduced to a minimum. At the present time this building is going from bad to worse through want of use. A very small expenditure in putting in extra windows and adopting one or two minor details to make the buildings suitable for Consumptives would only be necessary. The wards, beds, nurse's block, kitchen, &c., are all there.

I would not suggest that Batley should act alone in this matter. I would rather suggest that the Oakwell Joint Hospital Board should be asked to take the matter in hand, and that they should either rent or purchase the present White Lee Hospital and grounds, should use the existing buildings—which I believe have at present in the wards, beds for 24 persons—and all the contributing Authorities to the Board would then be in a position to send patients there. By this means the cost to Batley would be trifling, and great benefit would result to the Public Health in the town.

As a commencement a few patients could be admitted and the nursing staff could be supplied from the Oakwell Hospital. Later on, if necessary, the Sanatorium could have its own staff. Costly buildings of brick or stone are not necessary. The less buildings about the patients the better, and what there are should be of the simplest. Existing buildings such as we possess at White Lee are perfectly suitable and offer (with slight modification, the cost of which would be negligible) as good a chance to the Consumptive to recover his health as in any other manufacturing town in the country similarly situated.

It seems to me that by adopting some method on the lines I have proposed, with little trouble and expense, great benefit would accrue to the persons afflicted with this disease, the risk of infection in their homes to other inmates would be removed by removing the patient, and many of them would be able in time to become wage earners again. I have every confidence in recommending the matter to your consideration. Should the scheme be eventually adopted, matters of detail would offer no difficulty.

I should have stated that at the present time, as you are aware, the Urban District of Sandal has been absorbed into the City of Wakefield. This question of the treatment of Consumptives has been before the Wakefield Corporation, and negotiations are at present on foot to utilise the Sandal Fever Hospital Buildings. It is suggested that the expense would be trivial, that it will not again be required for infectious diseases, and that it would be a great pity to scrap the building and give up the site, when it might be made to serve such a useful purpose. In my opinion, what applies to Wakefield in this matter equally applies to Batley.

G. H. PEARCE,

Medical Officer of Health.

The following leaflet on Consumption is distributed by the Health Visitor when she calls at a house where a Consumptive resides.

This Handbill should be kept for Reference.

BOROUGH OF BATLEY.

CONSUMPTION.

Consumption is caused by the growth in the body of minute germs (tubercle bacilli). These germs will not develop in the bodies of those who are in robust health and are living under healthy conditions.

The germs are derived from persons or animals suffering from Consumption.

The phlegm, spit, or expectoration of Consumptive persons teems with the germs of Consumption, as also may the milk of Consumptive cows.

Instructions to those suffering from Consumption.

Early cases of consumption may be arrested, and all cases may be benefited by the following precautions:—

(1)—**Fresh Air.** Bedroom windows should be kept open during the day and especially at night, and no heavy curtains should obstruct the sunlight. If necessary the windows may be closed while dressing and undressing. The **Chimney** should be left open and not be stopped up. Stuffy rooms and railway carriages should be avoided.

(2)—**The Diet** should be ample. Avoid indigestible food. Alcohol is generally harmful, and should not be taken except under medical advice. All milk should be scalded.

(3)—**Clothing** should be sufficiently warm to enable patients to stand the necessary amount of fresh air in their living rooms and bedrooms. In the winter, overcoats and wraps are often of more service in the house and workshop than when taking exercise out of doors.

(4)—**The Phlegm** coughed up by a consumptive person is **dangerous** when dried, because it becomes powdered into dust and is breathed with the air into the lungs, thus causing **fresh** infection in the patient and others. It is therefore dangerous as well as disgusting to spit on the floors or walls of dwelling houses, public rooms, or public conveyances.

(5)—Consumptives should spit either into pieces of rag or paper, which should be at once burned, or into a pocket spittoon or wide-mouthed bottle well corked. They should never spit on the pavement, but failing a bottle the next best thing is to spit straight into one of the street gullies. Persons with a chronic cough should take the same precautions.

(6)—Consumptives must not kiss or be kissed on the mouth.

(7)—**The house must be kept scrupulously clean.** When cleansing the rooms damp dusters and plenty of wet sawdust or tea leaves should be used. Boil the dusters. Burn the sawdust or tea leaves. Any dampness, smells, or unwholesome conditions should be reported to the Medical Officer of Health. The room will be disinfected when necessary by the Sanitary Authority.

(8)—A handkerchief should be held over the mouth when coughing. All handkerchiefs must be boiled with a little soda before being sent to the wash.

(9)—A separate bedroom is desirable while there is any cough.

Advice to those wishing to avoid the Disease.

(1)—**Consumption** is not inherited and may be avoided even by those exposed to infection if the general health is good and simple precautions are taken.

(2)—**Fresh Air** by night and by day is essential, both at home and at your place of business. Warm clothes will help you to make this pleasant. There is no danger or risk in breathing night air.

(3)—**Overcrowded rooms** and excesses of all kinds must be avoided. Your house and surroundings must be in every way clean and sanitary.

(4)—**Promiscuous Spitting** must be avoided by yourself and by your companions and fellow workers.

(5)—There is no danger in living with consumptives provided the suggested precautions are taken. Hospital nurses do not catch consumption in properly managed hospitals.

Lastly, remember that fresh air and sunshine tend to cure and prevent not only consumption, but many other diseases.

Remember that it is as injurious to breathe the contaminated air of an unventilated room as to drink water contaminated with sewage.

G. H. PEARCE,

Medical Officer of Health.

PUBLIC HEALTH DEPARTMENT,
BATLEY.

NOTE.—Patients should give ample notice to the Medical Officer of Health of their intention to remove, together with full address of their intended future residence.

ANTHRAX.

A practitioner in the town asked me to see a case which he suspected to be Anthrax. The patient was a man who had been working in one of the mills in Batley. I examined in the laboratory several specimens from the pustule, which was upon the patient's eyebrow. The Anthrax Bacillus was readily demonstrated, and the patient was immediately sent off to Leeds General Infirmary. Serum treatment was adopted there and the man's life was saved.

DISINFECTION.

A steam disinfecting apparatus erected by Messrs. John Illingworth, and situated at the Sewage Works, Bradford Road, is used for the disinfection of bedding, mattresses, articles of clothing, &c. Houses are disinfected by means of

the Formalin Spray and Formalin Vapour, lamps being employed to produce the latter. Books from the Free Library are placed in a cabinet and submitted to the action of Formalin Vapour. Disinfectant liquids are handed out to applicants each morning from 9 to 10 a.m. Disinfectant powder for sprinkling ashpits is made at the dépôt, by mixing Carbolic Acid with powdered clinkers from the Refuse Destructor.

The following table gives a list of the various articles which have been dealt with during the year.

Article.	No. Disinfected.
Beds	700
Pillows	1722
Cushions	163
Blankets	1612
Mattresses	485
Counter Panes	490
Clothing	2552
Carpets	218
Total	7942

For a number of years it was the custom to use certain liquid disinfectants in Batley. This year I went into the question of the strength and price of these preparations, with a view to finding out whether due efficiency together with economy was being obtained. Carbolic Acid was taken as the standard, and the strength of the disinfectants which had been used for so long a period was compared with this standard, by the Rideal Walker method. I found that the Sanitary Committee was paying 1s. 2d. per gallon for the preparation used and obtained an efficiency of only 2.5. I

made other arrangements and stopped the purchase of this particular disinfectant. Now the Committee pay 2s. 6d. per gallon and obtain an efficiency of 20. The result of this is that the Corporation are now paying 2s. 6d. for exactly the same efficiency as they were previously paying 9s. 4d. for, and consequently a proportionate saving in expenditure is effected.

BACTERIOLOGICAL EXAMINATIONS.

The greater part of this work is done by the County Council at the Laboratory, County Hall, Wakefield. During the year examinations were made of many specimens. Some of these examinations were made in Batley. They were in connection with the following.

Disease suspected.	Total number examined.	Result.		
		Positive	Negative	Doubtful.
Typhoid	18	7	11	0
Diphtheria	126	51	75	0
Phthisis	62	17	45	0
Anthrax	6	6	0	0
Totals	212	81	131	0

There is a small laboratory at the Public Health Department, Batley, which was equipped jointly by the Sanitary and Education Committees during 1908. Most of the bacteriological and microscopic work called for in connection with the schools is done by me on the premises in this laboratory. I also occasionally examine specimens for the medical men in the town, to oblige them. Only urgent cases are dealt with, the amount of work being done by the Public Health Department and the shortness of staff making it impossible for sufficient time to be devoted to doing any more than this at present.

HOSPITAL ACCOMMODATION.

Two infectious diseases hospitals receive patients from Batley, viz., The Oakwell Joint Hospital and the Dewsbury Joint Hospital. The Oakwell Hospital receives patients from the Borough of Batley, and the Urban Districts of Birstall, Birkenshaw, Drighlington, Gomersal, and Gildersome. This hospital is situated near Drighlington Railway Station, about three miles from the centre of Batley. The site is about eight acres in extent. There are three ward pavilions, an administrative block, nurses home, laundry, disinfectant and discharge blocks, and mortuary. Enteric Fever, Scarlet Fever, and Diphtheria are the diseases treated. The Small Pox Hospital containing 16 beds, is some 500 yards distant from the above and consists of a caretaker's house, one ward pavilion, with nurses quarters and laundry.

The Town Council of Batley is represented on the Board by one Ex-Officio Member and 12 Elective Members.

The accommodation in the Hospital is 36 beds and 20 cots.

The following table gives particulars of removals from Batley to the Oakwell Hospital during 1910.

Diseases.	Remaining in Hospital 31st December, 1909.	Admitted to Hospital during 1910.	Discharged cured.	Remaining in Hospital 31st December, 1910.	No. of Deaths.	Mortality % of admissions.
Scarlet Fever	4	23	25	1	1	4.3
Diphtheria	1	36	29	4	4	11.1
Typhoid Fever	1	9	7	2	1	11.1
Totals	6	68	61	7	6	8.8

The Urban District of Soothill Upper was one of the districts which sent patients to the Dewsbury Joint Hospital, and when the greater portion of that district became part of Batley in April 1910, the agreement still held and hence patients from that part of the Borough would be sent to this Hospital. Up to the end of the year no patient had been sent from the Soothill Ward.

The Dewsbury Joint Hospital, situated at Earlsheaton, consists of three ward pavilions, an administrative block, nurses home, laundry, disinfection chamber, discharge block, mortuary, waiting rooms, stables and coach house, &c. The contributing authorities are Dewsbury and Heckmondwike, but since April 1st, 1910, Batley has become a partner. The Borough of Ossett also sends in patients which they pay for. There are 72 beds and 20 cots. Enteric Fever, Scarlet Fever, and Diphtheria are the diseases admitted. The Small Pox Hospital is one mile away from the main building. It consists of two large ward pavilions divided into four, with similar other buildings to the above. There are 50 beds and 12 cots.

There is in addition to the two preceding hospitals the old Small Pox Hospital at Smithies Moor Lane, Batley. The site is within the Borough, about six acres in extent of which four acres have been enclosed by a high wall 6 ft. 6 in. high. On this walled in area some buildings of wood and iron were erected in 1897, comprising two ward blocks containing 34 beds, an administrative block, and laundry. It has not been used since 1905 when the last case of Small Pox occurred. The buildings are now unoccupied, the caretaker having been dispensed with some time ago. The buildings are slowly going from bad to worse through the action of the weather. It seems regrettable that this should be the case. There is ample grass space inside the outer walls, the situation is a healthy one, and it would be a simple matter to adapt the circumstances so as to facilitate either a Sanatorium for Consumptives or an Open Air School being established.

METEOROLOGY.

I am indebted to the Borough Engineer for the following table of figures.

Rainfall for the year, 1910.			
January	3.06 inches	18	days
February	2.02 „	23	„
March	0.32 „	8	„
April	2.32 „	17	„
May	2.08 „	19	„
June	4.02 „	13	„
July	3.06 „	12	„
August	3.90 „	19	„
September	0.06 „	3	„
October	2.56 „	14	„
November	3.74 „	16	„
December	3.12 „	20	„
<hr/> 30.26 <hr/>		<hr/> 182 <hr/>	

It will be seen that during the months of June, July, and August, the total rainfall amounted to more than a third of the rainfall for the whole of the year. To this can be attributed the lessened number of cases of Zymotic Diarrhœa, which undoubtedly would have reached a higher total had these months been dry ones. The rainfall in Batley for 1910 is below the average for England and Wales, being 30.26 with 182 wet days. About 35 inches of rain annually fall in England and Wales, but the amount varies in different parts of the country, between 20 and 25 inches falling in the Eastern Counties, whilst in some parts of Cumberland as much as 150 inches of rain have been known to fall within a year.

An inch of rain is equal to 4.673 gallons to each square yard, or by weight, 101 tons to each acre.

The prevailing wind in Batley is Westerly, it being in this direction for about nine months in the year.

HOUSING.

No systematic inspection of houses in Batley has been undertaken up to the present, difficulties arising owing to pressure of other work and shortness of staff. The Sanitary

Committee have this matter under consideration at the present time and it is hoped that at an early date such arrangements will be made as will enable this work to be efficiently performed.

Where cases of infectious disease occur a report of the accommodation and sanitary condition of the premises is taken and appropriate action with the object of improving the circumstances always follows where such is necessary.

There are a number of back-to-back houses in Batley which were built several decades back. The last back-to-back houses built in Batley were erected in May, 1909, the plans being passed in September, 1908, and are in blocks of four. These are a great improvement on the old type where they were built in long rows, but it is gratifying to all sanitarians to know that the back-to-back house is a thing of the past, and that in future no more buildings of this type can be erected, the Housing, Town Planning, &c., Act, 1909, making this illegal.

During the year an important contribution to this subject was made by the publication of the "Report to the Local Government Board on Back-to-Back Houses," by Dr. L. W. Darra Mair. The report is of particular interest to Batley, as the enquiry was extended to thirteen industrial towns in the West Riding of Yorkshire, and certain examinations of property were carried out in Batley. The "Summary and Conclusions" is here reproduced.

1. The comparison which has been made between through houses and back-to-back houses has been carried out so as to bring under review good types only of back-to-back houses, situated in healthy areas.

2. The through houses and back-to-back houses thus compared were situated in 13 industrial towns in the West Riding of Yorkshire.

3. Every care was taken to select strictly comparable through and back-to-back houses, occupied by the same class of people, with similar occupations and wages. Nevertheless, the rent of the through houses was, on the average, appreci-

ably higher than that of the back-to-back houses—the average rent of the former being 5s. 6d., and of the latter, 4s. 6d. per week.

4. The vital statistics which have been obtained regarding these areas, cover a period of 10 years (1898-1907); and on the basis of a special detailed census of each area, corrections have been made, throughout, for differences in the age and sex constitutions of the populations concerned.

5. The corrected average annual death-rate from all causes was greater in the back-to-back houses than in the through houses, to the extent of 15 per cent.

6. The excess of mortality in back-to-back houses built in continuous rows was greater still, amounting on the average to a little more than 20 per cent.

7. The corrected average annual death-rate from all causes in through houses and in back-to-back houses possessed of means of side ventilation (blocks of four), were about equal.

8. The outstanding causes of death which produced the excess of mortality in back-to-back houses were

(a.) pneumonia, bronchitis and other pulmonary diseases (exclusive of phthisis), and

(b) diseases of defective development and of malnutrition in young children.

The corrected excess of mortality from each of these two groups of diseases, in back-to-back houses, approached 40 per cent.

9. There was also some excess of mortality (10 per cent.) in back-to-back houses from infectious diseases, and a small excess (5 per cent.) from diarrhœa.

10. Mortality from phthisis showed an excess, amounting to 12 per cent., in back-to-back houses built in rows, but not in back-to-back houses built so as to admit of side ventilation (blocks of four).

11. Although the average rate of mortality from all causes was about the same in through houses and in back-to-back houses built in blocks of four, there was a large excess of mortality in the latter from pulmonary diseases (exclusive of phthisis), as was the case in back-to-back houses in rows, and also a large excess of mortality from the diseases (except premature birth) of defective development and malnutrition in children.

12. Approximately, the ages at which the excess of mortality in back-to-back houses occurred were the early ages of life from infancy up to 15 years, and the late ages of life from 65 years and upwards. At both of these periods of life, the predominating cause of the excess was mortality from pulmonary diseases, and at the early ages, as well, from diseases of defective development and malnutrition.

13. At the age periods intervening between these two extremes, the relative excess of mortality in back-to-back houses was comparatively small.

On the whole, therefore, it is reasonable to infer from the data given in this report that, even in good types of back-to-back houses situated in healthy areas, the mortality from all causes is higher by 15 to 20 per cent. than in comparable through houses; but that this excess is not evident in back-to-back houses built with means of side ventilation.

Furthermore, it may likewise be inferred that the chief sufferers from residence in back-to-back houses are infants, young children, and old persons, in consequence, principally, of the greater increased liability of both young and old to death from pulmonary diseases (other than phthisis), and, of the young, to death from diseases resulting from defective development and malnutrition.

During 1910, Closing Orders under the Housing, Town Planning, &c. Act, 1909, were made in respect of the following:—

94, 96, and 98, Watson's Buildings, Oaks Road, Batley.

The owner appealed to the Local Government Board against the Order, and the Board directed an enquiry to be held, but on this the opposition was withdrawn and the Board dismissed the appeal.

A house in New Street was also closed as being unfit for human habitation.

The following were also dealt with, the defects found, in most cases, being remedied.

Overcrowded houses	13
Damp houses	10
Dilapidated houses	5

THE HOUSING, TOWN PLANNING, &c. Act, 1909.

This Act, in so far as the housing sections are concerned, considerably increases the work of sanitary authorities and their officials. Considerable powers are also given to the County Medical Officer of Health. Previously to the passing of this Act he had not the same powers of entry as a local Medical Officer. Now he has. In addition the local Medical Officer is bound under a penalty to furnish the County Medical Officer with any information which the latter may reasonably require for the purpose of his duties as prescribed by the Local Government Board, and the Town Clerk is also under a penalty if he fails to furnish such information as can legally be required.

So far as Batley is concerned it will mean that some 9,000 houses will have to be inspected and proper records of the sanitary conditions of the property, measurement of rooms, &c., kept. The clerical work alone in connection with this will be of considerable magnitude, apart from the actual carrying out of the inspections, and, as previously stated, is beyond the present capacity of the staff.

HOUSING (INSPECTION OF DISTRICT) REGULATIONS, 1910. In September of 1910, the Local Government Board issued an Order making Regulations with respect to the manner in which housing inspection shall be carried out.

The circular letter to all local authorities and the Order itself are here reproduced.

HOUSING (INSPECTION OF DISTRICT) REGULATIONS, 1910.

Local Government Board,
Whitehall, S.W.,

3rd September, 1910.

SIR,

I am directed by the Local Government Board to advert to Section 17 (1) of the Housing, Town Planning, &c. Act, 1909, under which it is the duty of every Local Authority within the meaning of Part II. of the Housing of the Working Classes Act, 1890, to cause to be made from time to time inspection of their District, with a view to ascertain whether any dwelling house therein is in a state so dangerous or injurious to health as to be unfit for human habitation, and for that purpose to comply with such regulations and to keep such records as may be prescribed by the Board.

The Board have accordingly issued an Order making Regulations with respect to the manner in which inspection of the District under this Section shall be carried out, and with respect to the records to be kept of such inspection. Copies of this Order are enclosed.

Under Article I. the Local Authority are to determine their procedure, which is to provide for thorough inspection of the dwelling houses or localities in the District, and they must also cause to be prepared from time to time a list of dwelling houses of which early inspection is desirable.

Article II. enumerates the matters in relation to which inspection should be made, and Article III. prescribes the records to be kept of each inspection.

Under Article IV. the Local Authority are to take these records into consideration at each meeting, and to give such directions and to take such action as may be desirable in each case, and a note of such directions is to be added to the records.

By Article V. the Medical Officer of Health is required to include in his Annual Report certain information and particulars as to the inspections made and the results.

By Article VI. it is made the duty of the Officers of the Local Authority to observe and execute all lawful orders and directions of the Local Authority in regard to the inspection of the District under Section 17 of the Act and under the Regulations.

The Board are aware that many Local Authorities have already instituted a system of inspection under which inquiries are made by the Inspector of Nuisances or Sanitary Inspector in respect of the matters referred to in Article II., the results being recorded in a form which contains information on other points besides those mentioned in the Article. The Board do not suggest that this form should be abandoned or altered, provided that it includes all the matters covered by Article II. The provisions of the Order are necessarily limited to matters to be recorded as the result of inspections under and for the purpose of Section 17 of the Act.

By Article 19 (3) of the Orders of 23rd March and 8th December, 1891, relating to Urban and Rural Districts and to London respectively, it is the duty of the Inspector of Nuisances or Sanitary Inspector, by inspection of the District both systematically at certain periods, and at intervals as occasion may require, to keep himself informed in respect of nuisances existing therein which require abatement. The Local Authority will no doubt usually designate the Inspector of Nuisances or Sanitary Inspector as the Officer who is to act under Article I. (3) of the Regulations.

It will be open to the Local Authority, if they think fit, to delegate the duty of considering the records to a Committee, subject to such directions as they consider necessary.

I am, Sir,

Your obedient Servant,

H. C. MONRO,

Secretary.

The Clerk to the
Local Authority.

STATUTORY RULES AND ORDERS, 1910.

No. 919.

HOUSING OF THE WORKING CLASSES, ENGLAND.

Unhealthy Houses.

THE HOUSING (INSPECTION OF DISTRICT) REGULATIONS, 1910.

DATED SEPTEMBER 2, 1910.

(55,578)

To the several Local Authorities in England and Wales
for the purpose of Part II. of the Housing of the
Working Classes Act, 1890 ;—

And to all others whom it may concern.

Whereas by sub-section (1) of Section 17 of the Housing
ing, Town Planning, &c., Act, 1909, it is enacted that it
shall be the duty of every local authority within the meaning
of Part II. of the Housing of the Working Classes Act, 1890
(herein-after referred to as “ the local authority ”) to cause
to be made from time to time inspection of their district,
with a view to ascertain whether any dwelling house therein
is in a state so dangerous or injurious to health as to be
unfit for human habitation, and that for that purpose it shall
be the duty of the local authority, and of every officer of
the local authority, to comply with such regulations and to
keep such records as may be prescribed by the Local Govern-
ment Board.

Now therefore, We, the Local Government Board, in
pursuance of the powers given to Us in that behalf, by this
Order, prescribe the following Regulations ; that is to say :—

Article I.—(1) The local authority shall as early as
practicable after the date of this Order take into considera-
tion the provisions of sub-section (1) of Section 17 of the
Act of 1909, and shall determine the procedure to be adopted
under these Regulations, to give effect to the requirements
of that sub-section in regard to the inspection of their
district from time to time.

(2) The local authority shall as part of their procedure make provision for a thorough inspection to be carried out from time to time according to the varying needs or circumstances of the dwelling houses or localities in the district of the local authority.

(3) The local authority shall cause to be prepared from time to time by the Medical Officer of Health, or by an Officer designated by them but acting under his direction and supervision, a list or lists of dwelling houses the early inspection of which is, in the opinion of the Medical Officer of Health, desirable. The list or lists may, if thought fit, relate to the dwelling houses within a defined area of the district without specifying each house separately therein.

Article II.—The inspection under and for the purposes of sub-section (1) of Section 17 of the Act of 1909 shall be made by the Medical Officer of Health, or by an Officer designated by the local authority but acting under his direction and supervision, and the Officer making inspection of any dwelling house shall examine the state of the dwelling house in relation to the following matters, namely:—

- (1) The arrangements for preventing the contamination of the water supply.
- (2) Closet accommodation.
- (3) Drainage.
- (4) The condition of the dwelling house in regard to light, the free circulation of air, dampness, and cleanliness.
- (5) The paving, drainage, and sanitary condition of any yard or out-houses belonging to or occupied with the dwelling house.
- (6) The arrangements for the deposit of refuse and ashes.
- (7) The existence of any room which would in pursuance of sub-section (7) of Section 17 of the Act of 1909 be a dwelling house so dangerous or injurious to health as to be unfit for human habitation.

- (8) Any defects in other matters which may tend to render the dwelling house dangerous or injurious to the health of an inhabitant.

Article III.—Records of the inspection of dwelling houses made under and for the purpose of sub-section (1) of Section 17 of the Act of 1909 shall be prepared under the direction and supervision of the Medical Officer of Health, and shall be kept by the Officer of the local authority making the inspection or by some other Officer appointed or employed for the purpose by the local authority.

The records may be kept in a book or books or on separate sheets or cards, and shall contain information, under appropriate headings, as to:—

1. The situation of the dwelling house, and its name or number,
2. The name of the Officer who made the inspection,
3. The date when the dwelling house was inspected,
4. The date of the last previous inspection and a reference to the record thereof,
5. The state of the dwelling house in regard to each of the matters referred to in Article II. of these Regulations,
6. Any action taken by the Medical Officer of Health, or other Officer of the local authority, either independently or on the directions of the local authority,
7. The result of any action so taken,
8. Any further action which should be taken in respect of the dwelling house.

Article IV.—The local authority shall, as far as may be necessary, take into consideration at each of their ordinary meetings the records kept in pursuance of Article III. of these Regulations, and shall give all such directions and take all such action within their powers as may be necessary or desirable in regard to any dwelling house to which the

records relate, and a note of any directions so given and the result of any action taken shall be added to the records.

Article V.—The Medical Officer of Health shall include in his Annual Report information and particulars in tabular form in regard to the number of dwelling houses inspected under and for the purposes of Section 17 of the Act of 1909, the number of dwelling houses which on inspection were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation, the number of representations made to the local authority with a view to the making of closing orders, the number of closing orders made, the number of dwelling houses the defects in which were remedied without the making of closing orders, the number of dwelling houses which after the making of closing orders were put into a fit state for human habitation, and the general character of the defects found to exist. He shall also include any other information and particulars which he may consider desirable in regard to the work of inspection under the said section.

Article VI.—The Medical Officer of Health and any other Officer of the local authority shall observe and execute all lawful orders and directions of the local authority in regard to or incidental to the inspection of the district of the local authority under and for the purposes of Section 17 of the Act of 1909, and the execution of these Regulations.

Article VII.—In these Regulations “the Act of 1909” means the Housing, Town Planning, &c., Act, 1909.

Article VIII.—These Regulations may be cited as the Housing (Inspection of District) Regulations, 1910.

Given under the Seal of the Office of the Local Government Board, this Second day of September, in the year One thousand nine hundred and ten.

(L. S.)

JOHN BURNS,

President.

H. C. MONRO,
Secretary.

WATER SUPPLY.

The Borough of Batley is supplied with water from its own reservoirs situated amongst the hills near Holmfirth. These reservoirs are three in number, and are known as the Yateholme, Riding Wood, and Ramsden. An additional supply is obtained from the Dewsbury and Heckmondwike Water Board.

The Urban District of Soothill Upper was supplied with water by the Halifax Corporation, and the part of this district absorbed into Batley still retains this source of supply.

The Borough therefore derives its water from three sources.

YATEHOLME RESERVOIR.

The area at top water level is about 16 acres. The depth from top water level to the bottom of the discharge pipe is 38 feet 8 inches. The capacity of this reservoir is approximately 90,000,000 gallons, and its drainage area is 322 acres. The streams flowing into it are the Great Bent Dike, the Ramsden Clough, the Boggery, the Gussett and Holme Woods Dikes.

The compensation of the millowners to be sent from this reservoir is $50\frac{1}{2}$ cubic feet, or 315 gallons per minute, during twelve hours of each of the working days of the year, except Saturdays, and during seven hours of each Saturday.

The water from this reservoir is conveyed to the valve wells at the foot of the Riding Wood reservoir embankment by a line of 12-inch pipes.

RIDING WOOD RESERVOIR.

The area at top water level is about 10 acres. The depth from top water level to the mouth of discharge pipe is 59 feet. The capacity of this reservoir is approximately 54,700,000 gallons, and its drainage area is 583 acres. The stream flowing into it is the Ramsden Clough.

The compensation for the millowners to be sent from this reservoir is 91 cubic feet, or $567\frac{1}{2}$ gallons per minute during twelve hours of each of the working days of the year, except Saturdays, and during seven hours of each Saturday.

The water from this reservoir joins the waters from the Yateholme Reservoir at the valve wells at the foot of this embankment, and is conveyed thence to the valve wells near Brown Hill Mills, on the western bank of the river Holme, by a line of 12-inch pipes, and thence to the reservoir at Staincliffe by a line of 15-inch pipes.

RAMSDEN RESERVOIR.

The area at top water level is about 12 acres.

The depth from top water level to the bottom of discharge pipe at the shaft is 67 feet, 9 inches.

The capacity of this reservoir is 86,773,000 gallons, and its drainage area is 692 acres.

The stream flowing into it is Netherly Clough and the overflow from Yateholme and Riding Wood Reservoirs.

The compensation of the millowners to be sent from this reservoir is 250 cubic feet, or $1557\frac{1}{2}$ gallons per minute (this includes the compensation from Yateholme and Riding Wood Reservoirs) during twelve hours of each of the working days of the year except Saturdays, and during seven hours of each Saturday.

No water is discharged on Good Friday, Christmas Day and Sundays.

The water from this reservoir joins the water from the Yateholme and Riding Wood Reservoirs at a well near the embankment, and is conveyed thence to the wells near Brown Hill Mills, on the western bank of the river Holme by a line of 12-inch pipes, and thence to the reservoir at Staincliffe by a line of 15-inch pipes.

An annual available rainfall of 27 inches on the watershed of the Batley water works, with the impounding capacity of Yateholme, Riding Wood, and Ramsden reservoirs, will, in

addition to giving the required amount of compensation water to the Holme Valley millowners, provide for a daily consumption of 1,213,757 gallons during a drought of 150 days.

STAINCLIFFE RESERVOIR.

This is a large service reservoir situated within the Borough. The depths of this reservoir are 15 and 25 feet. The capacity is 3,336,000 gallons. The water is distributed from here to the consumers by lines of pipes 12 in., 10 in., and 9 in. diameter.

The whole of the water supply of the Borough is from the moorlands, and from this fact it is to be expected that cases of lead poisoning may occur. I have not known of the existence of a single case during the past year. The Dewsbury and Heckmondwike water is treated with chalk before reaching the consumers. A minimum of 1,000,000 gallons weekly is agreed to be supplied by this Board to the Batley Corporation. The Batley water is not treated.

The supply from Halifax, I am informed, is not treated. It is a moorland and spring water, soft, acid, and peaty. Hardness 2 deg. to 3 deg.

The supply per head of the population amounts to 43 gallons per day. The supply is constant.

A usual daily amount of water for purposes per head of the population is stated as follows:—

	gallons.
Domestic supply (without baths or closets)	12
Additional for general baths	4
Water Closets	6
Unavoidable waste	3
	—
Total house supply	25
Town and trade purposes, animals in non-manufacturing towns	5
Additional for exceptional manufacturing towns	5
	—
Total	<u>35</u>

I give particulars of analyses of the various waters, for which I am indebted to the Waterworks Engineer, J. C. Barrowclough, Esq.

County Analyst's Office,
Bradford.

February, 22nd, 1911.

Analytical Report upon three samples of water from
Batley Corporation, received February 20th, 1911.

No. 1. Staincliffe Reservoir water from gathering ground
at Holmfirth.

	Grains per gallon.
Total Solid Matters	6.40
Chlorine (combined)	.40
Nitrites	None
Nitrogen as Nitrates	None
Free Ammonia	.0027
Albuminoid Ammonia	.0025
Lead	None
Total Hardness (Clark's scale)	1.7

No. 2. Staincliffe Reservoir, water from Dewsbury and
Heckmondwike Combined Board.

	Grains per gallon.
Total Solid Matters	9.40
Chlorine (combined)	.50
Nitrites	None
Nitrogen as Nitrates	None
Free Ammonia	.0017
Albuminoid Ammonia	.0050
Lead	None
Total Hardness (Clark's Scale)	1.9

No. 3. Domestic Water of Batley (No. 1 & No. 2 mixed.)

	Grains per gallon.
Total Solid Matters	7.20
Chlorine (combined)	.50
Nitrites	None
Nitrogen as Nitrates	None
Free Ammonia	.0018
Albuminoid Ammonia	.0025
Lead	None
Total Hardness (Clark's Scale)	1.7

These are all organically pure waters. They are so remarkably soft that the relative absence of lime and magnesia points to the possibility of their acting upon lead pipes under certain conditions. In my opinion it would be advisable to leave these waters for 24 hours in a good length of service piping, and then have the waters so exposed tested for lead. These waters are some of the very few softest waters we have ever examined.

F. W. RICHARDSON.

It will be noticed that reaction is not mentioned, and in reply to a query, Mr. Barrowclough, Waterworks Engineer, received the following:—

City and County Analyst's Office,
Bradford.

February 24th, 1911.

Dear Sir,

We have examined these waters and find them to be practically free from all acidity. So much depends upon the nature of the acidity which one finds in a water as to whether the sample is likely to act or not upon lead.

Faithfully yours,

Richardson and Jaffé.

J. C. Barrowclough, Esq.

Water supplied to Soothill Upper.

County Analyst's Office,
Bradford.

3rd October, 1910.

	Grains per gallon.
Total Solid Matters	8.0
Chlorine (combined)	0.8
Nitrites	None
Nitrogen as Nitrates	None
Free Ammonia	None
Albuminoid Ammonia	.0007
Lead	None
Total Hardness (Clark's Scale)	2.4

This is one of the purest waters we have yet analysed. It is absolutely free from the least sign of either past or present sewage contamination. It is so extremely soft that under certain conditions it may be expected to exert a solvent action upon lead.

F. W. Richardson,
County Analyst.

During the Summer I did some work in connection with the bacteriology of the Batley Water Supply. I took samples from the supply pipe which delivers fresh water into the swimming bath. This is the same water that is used for drinking purposes in the houses in the town.

I made plate preparations on gelatine and agar-agar, and incubated the former at 20 degrees centigrade, and the latter at 37 degrees centigrade. The colonies forming were examined from day to day. The number of organisms developing on gelatine incubated at 20 degrees centigrade and counted in 48 hours equalled about 43 per cubic centimetre of water. Coliform or Intestinal organisms were present in 5 c.c. of water, but not in 1 c.c.

This result was very satisfactory, and shews that bacteriologically the Batley water supply ranks high. According to Miquel's standard, pure water may contain from 100 to 1,000 organisms per c.c., very impure being defined to contain 100,000 and upwards per c.c.

MILK SUPPLY.

During the last few years an increasing amount of public attention has been directed to this subject. It is becoming a more generally recognised fact that in the past the milk supply of the country has been far from the ideal article it should be. At the present time disease germs and dirt are a frequent addition to the milk delivered at our houses, and much is yet to be done in the future before the milk supply can be looked upon as even reasonably pure. As this article of diet forms so large a proportion of the food of infants, young children, and invalids, it is certainly not too much to insist that it should reach the public in a wholesome and pure condition.

Typhoid Fever, Scarlet Fever, Diphtheria, and various other diseases are conveyed by milk, which has the property of absorbing gases and vapours, whilst at the same time forming a most excellent cultivating medium for the growth of the germs of disease.

The Report of the Royal Commission on Tuberculosis states that in the year 1901 there were 1,887,414 milch cows in England, and 4,102,061 in the United Kingdom.

Prof. MacFadyean an eminent member of the veterinary profession has publicly stated that about 30 per cent. of milch cows in English cow houses are diseased and suffering from Tuberculosis.

The number of diseased animals from which milk is taken and supplied to the public must therefore be enormous.

Tuberculosis may be contracted by persons drinking milk taken from cows suffering from it themselves, and most of the deaths of infants from Tuberculosis are caused by tuberculous milk which conveys to them the disease.

In towns, cows are usually bought by the cowkeeper shortly after calving and placed in the cowshed. This place is frequently low, dark, and ill ventilated. Usually the cows are kept inside from ^{November to} April, and in many cases the animals remain in the cowshed without ever going out into the fresh air from the time of their purchase to the time of their sale, which takes place when the cow ceases to give a sufficient quantity of milk. These conditions are most favourable for the developement of Tuberculosis. Cows are usually fastened in the stalls in pairs. It is easy to see how one cow infected with Tuberculosis can infect another, the disease being conveyed by the breath, or by means of the infected saliva from one cow being licked up by its neighbour in the stall.

It is essential for the protection of the public that the sanitary condition of cowsheds throughout the country should be improved. More light, ventilation, and cubic space is needed in the average cowshed, greater cleanliness on the

part of the milkers, and regular cleansing of the sheds themselves, together with frequent removal of the heaps of manure usually seen in connection therewith.

Regular veterinary inspection of cattle in cowsheds is also essential to ensure that milk is not being taken from diseased animals.

During the year the County Council sent out a circular to local authorities stating that they were prepared to undertake the examination of samples of milk taken from cows suspected of being Tuberculous. This is a step forward and most helpful, but obviously the first action to be taken is to arrange for efficient veterinary inspection of the animals at regular intervals in order that suspicious animals may be seen and their milk taken, and this I would strongly recommend to the consideration of the Sanitary Committee. Were such inspection decided upon it would be a great safeguard to the public health of the Borough. One veterinary inspection of each cow in every cowshed in the Borough every six months might be sufficient. At the same time it is to be remembered that we have no control over cowsheds from which milk is brought into the Borough but which cowsheds are outside the Borough boundaries.

New legislation to ensure the purity of the milk supply is urgently necessary in the interests of the national health and such is hoped for in the near future.

It would be of a great advantage in helping to control Tuberculosis in cattle and the danger of the communication of the disease to human beings, if every dairy cow was registered. I should like to see a law passed making it compulsory that directly a cow entered a cowshed it had to be registered by the sanitary authority in which the cowshed was situated. Before the cow could be removed out of the district, notice would have to be given to the Local authority, giving the animals destination. The local authority would then communicate with the Officials of the sanitary district to which the animal was to be taken, and if for slaughter, an Official there would have an opportunity of seeing the carcass after slaughter and of condemning it if diseased. At present

many cows which become tubercular in cowsheds are sent into other districts, where inspection is lax, and they are slaughtered for food. Registration would effectually stop this and would not cause any hardship to any person. The public would be the gainers.

The following particulars are taken from the Register of Dairies, Cowsheds and Milkshops :—

Cowkeepers residing within the Borough	37
Cowsheds within the Borough	68
Milk sellers who do not keep cows but reside within the Borough	16
Milk sellers residing outside the Borough but who bring in milk for sale.	26

The Local Government Board recommend as a minimum 800 cubic feet of space for each cow.

The following table shows the space per cow for each cowshed in the Borough.

Air space per cow.					No. of Sheds
Over 1,000 cubic feet	...	...	...	...	9
Do. 800 and under 1,000 cubic feet					13
Do. 600	do.	800	do.		18
Do. 400	do.	600	do.		23
Do. 300	do.	400	do.		5
					68

The cowsheds are visited once every three months. An objectionable practice amongst a number of the milk sellers is that of storing their milk vessels in the living rooms of their houses. Great difficulty is experienced in the endeavour to get the dealers to provide a suitable storage place, in order that their vessels are not liable to become contaminated. Another most insanitary practice is that of having a metal box in which the ladles are kept upon some

of the carts. This box is open, not often cleansed, dust and dirt are blown into it from the streets, and the ladles which stand in it are put into the milk cans to measure the milk, thus polluting it every time. Only recently I saw a milk seller take this box, which was very dirty, and pour out of it into his milk can the milk which had accumulated from the drippings from the ladles. A large amount of dust from the streets was thereby also carried into the milk can.

The following are particulars of action taken with respect to milk samples and adulterations during the year.

	Genuine.	Poor Quality.	Adulterated.	Totals.
New Milk	38	11	9	58
Skimmed Milk	2	—	—	2
Legal proceedings were taken as specified below.				

Date of Hearing	Nature of Offence.	Decision of Court.		
		Penalty £ s. d.	Costs £ s. d.	Total £ s. d.
1910 July 11	Selling New Milk adulterated with 4·9% of added water, also abstraction of cream ...	1 0 0	1 11 0	2 11 0
Sept. 30	Selling New Milk adulterated with 8·0% of added water, also abstraction of cream ...	3 0 0	1 9 0	4 9 0
Dec. 12	Selling New Milk with 60% of cream abstracted ...	3 0 0	1 4 6	4 4 6
	Total	7 0 0	4 4 6	11 4 6

With respect to six samples which were adulterated, the Committee decided not to take legal proceedings. The adulteration varying from 1.1% to 1.4% of added water, and also a slight abstraction of cream in one case.

Seven samples, other than milk, were taken during the year under the Foods and Drugs Acts, namely, Butter 2, Lard 2, White Pepper 2, Coffee 1. One sample of white pepper contained 4.2% excess of fibre, but the Committee decided not to prosecute.

The Board of Agriculture recommends the taking of three samples to every thousand inhabitants. On this basis the number of samples which should be taken yearly in Batley should be about 110.

It appears that previously it has been customary for milk samples to be taken only on a weekday and during the morning. Arrangements have now been made for samples to be taken at all times, morning or evening, Sundays, holidays or other times, the result being that now the dishonest milk dealer is no longer safe in concluding that once his milk has been sampled he will not be troubled again for a period. On the first occasion on which samples were taken on Sundays, two out of six were found to be adulterated with added water, and proceedings were ordered by the Sanitary Committee to be taken against the offenders.

COMMON LODGING HOUSES.

There are two registered Common Lodging Houses in Batley. One is kept in fair condition, but the other one, which is for men only, requires frequent supervision. On each occasion when I have visited this building, the premises have been in a dirty condition. The proprietor has been remonstrated with several times on this account. There are two other buildings in the town, which for all practical purposes are Common Lodging Houses, and are used as such. They are not registered and the proprietors refuse to make application for registration. In my opinion these persons should be compelled to comply with the law, in the interests of the public health. It is also a cause of complaint from the two other Common Lodging House Keepers that whilst they themselves are obliged to be registered these others are not. I would recommend the Sanitary Committee to consider this matter, and that the Town Clerk should be asked his opinion upon the legal position. Personally I am satisfied from observation that the Corporation is being defied and hence it is desirable to have this matter settled one way or the other by such means as the Town Clerk may advise.

HOUSES LET IN LODGINGS.

Bye-laws with respect to Houses let in lodgings were adopted by the Corporation in February, 1889, and approved by the Local Government Board in April of the same year. I am informed there are no houses of this nature in the Borough.

SLAUGHTER HOUSES.

There are 19 slaughter-houses on the Register. During the year an application was received for the licensing of an additional building for this purpose. The conditions were not good and could not be made to comply with the Model Bye-laws of the Local Government Board, and on my advice the Committee refused the application.

As showing the difficulty of proper supervision where a number of private slaughter-houses exist, the following case is of interest.

During the year I received a telegram from a certain place in Somersetshire that a parcel of suspicious meat had been despatched from there, consigned to a Batley butcher. I visited this person's slaughter-house and found the meat had arrived in a sack. It was in weight about one hundred pounds, contained no bone, looked very dirty, there being soil from the ground upon it, and was of a dark brown appearance. The butcher told me he had paid 4½d. per lb. for it, carriage paid, and his object was to make it into potted meat. I took possession of the meat, which was destroyed at the Refuse Destructor. The butcher was ordered to appear before the Sanitary Committee, and ultimately it was decided to refrain from prosecution, but he was warned as to any similar occurrence in the future. I was informed by the local authority in Somersetshire that this meat was probably from the carcase of an old bull which had died on the premises where the meat was sent from. The person who consigned the meat was described in a letter received by me in connection with this matter as one who "buys up all the dead and dying animals around." He was prosecuted by the Somerset Authorities for killing animals in an un-

registered slaughter-house and was convicted. The Batley butcher was subpœnaed to attend the court when the case was heard, his evidence being sought. I myself was also warned that I might be subpœnaed, but ultimately was not called upon to make the journey.

In view of the fact that the newspapers regularly contain accounts of death from ptomaine poisoning caused by eating potted meat, &c., it is desirable that such a condition as the one related should not be possible. There might have been an outbreak of fatal ptomaine poisoning amongst persons who had consumed potted meat made from this animal's flesh, or there might not. In any case it is a questionable practice for meat to be sent such a distance as this at such a low price, including carriage, for the purpose of making up into potted meat. If efficient inspection of the people's meat supply is carried out, such occurrences as these are not likely to happen. So long as there is in any town a number of small private slaughter-houses there will always be opportunities for the unscrupulous members of the meat trade to resort to undesirable practices.

Extract from the minutes of the Sanitary Committee dated 21st December, 1910.

It was resolved that the Medical Officer of Health be instructed to prepare and submit to this Committee a report on the provision of a public abbatoir.

I prepared and submitted a report as instructed, which is here given.

SLAUGHTER HOUSES.

There are 19 slaughter-houses on the register in this Borough. There is some doubt as to whether all these were in occupation prior to the passing of the Public Health Act, 1875.

The Local Government Board have drawn up for the guidance of local authorities and their officials, certain sets of regulations which may be taken as a guide in dealing with the various matters on which decisions are from time to time

required. These rules are known as the Model Byelaws of the Local Government Board, and a perusal of the Model Byelaws relating to slaughter-houses will be of interest. They are given below :—

1. The premises to be erected or to be used and occupied as a slaughter-house should not be within 100 feet of any dwelling house ; and the site should be such as to admit of free ventilation by direct communication with the external air on two sides at least of the slaughter house.
2. Lairs for cattle in connection with the slaughter-house should not be within 100 feet of a dwelling house.
3. The slaughter-house should not in any part be below the surface of the adjoining ground.
4. The approach to the slaughter-house should not be on an incline of more than one-in-four, and should not be through any dwelling-house or shop.
5. No room or loft should be constructed over the slaughter-house.
6. The slaughter-house should be provided with an adequate tank or other proper receptacle for water, so placed that the bottom shall not be less than six feet above the level of the floor of the slaughter-house.
7. The slaughter-house should be provided with means of thorough ventilation.
8. The slaughter-house should be well paved with asphalt or concrete, and laid with proper slope and channel towards a gully, which should be properly trapped and covered with a grating, the bars of which should be not more than three-eighths of an inch apart.

Provision for the effectual drainage of the slaughter-house should also be made.

9. The surface of the walls in the interior of the slaughter-house should be covered with hard, smooth, impervious material, to a sufficient height.

Any Loft or room above.	Distance of nearest house.	Internal Surface.		Ventilation.	Lighting	Water supply.	Drainage.	No. and kind of covered non-absorbent vessels.	Yard.	Remarks.
		Floors.	Walls.							
No	20 yards.	Concrete and Brick	Brick	Barred openings	Glass in Roof	Town. No Cistern	Pipes to Sewer. Trapped	1 Bin	Part Paved	Keeping of pigs here was a nuisance to adjoining property. Pigstye has been pulled down....
No	12 yards	Concrete and Brick	Stone and Brick	Two Barred openings	Glass in Roof	do.	do	1 Bin	Paved	Lair and stable communicate with slaughter house. ...
Yes	8 yards	Concrete	Brick	Barred opening	Window	do.	do	2 Bins	Asphalted	Three separate Butchers use this slaughter house. ...
Yes	4 feet	Stone	do	Three Barred openings	Windows	Town. Tank for storage	do	1 Bin	Paved	S.H. occasionally used as stable and wash-house until forbidden. Three Butchers kill here....
No.	Joins up to it.	Concrete	do	Barred Windows and openings	Windows	Town. Tub for storage	Pipe to Sewer. Trapped	Covered Cart	Paved	
Yes	8 yards	Concrete	do	None whatever	None whatever	Town. No Cistern	do	2 Bins and 1 old fish Barrel	No Paved yard	Stable communicates with S.H. and S.H. opens direct on to street. ...
Yes	4 feet	Flags	do	Barred openings	Windows	do	do	1 Bin	Paved	Pigeon loft over slaughter house. ...
Yes	Joins up to it.	Concrete	Stone and Brick	Window	Window	do	do	1 Bin	Paved	S.H. communicates with shop and underground cellar, where coals are stored. Two Butchers kill here....
No	12 yards	Concrete	Brick	Windows	Windows	do	do	1 Bin	Paved	Two Butchers kill here. ...
No	6 yards	Concrete	do	Barred openings	Window	do	do	2 Bins	Partly Paved	Animals kept inside S.H. causing offensive odour. ... Food prepared for sale inside slaughter house. ...
No	6 yards	Flags	do	Brick openings	Glass in Roof	do	do	1 Bin	Paved	Structurally unsuitable for a slaughter house. ...
Yes	8 yards	do	do	Window	Window	do	do	2 Bins	None	Animals awaiting slaughter are penned inside and watch process. Two Butchers kill here ...
No	Joins up to it.	do	do	Windows	Windows	do	do	1 Bin	Paved	Bad approach for animals S.H. communicates both with house and shop. ...
No	4 yards	Stone	do	Window	Window	do	do	1 Bin	Unpaved	S.H. communicates with shop. ...
No	8 yards	Flags	do	Grating	Window	do	do	2 Bins	Unpaved	S.H. communicates with shop and lairage. Two Butchers kill here....
No	Joins up to it.	do	do	Lattices	Windows	do	do	1 Bin	Paved	Bad approach. Two Butchers kill here.
No	15 yards	do	do	Gratings	Windows	do	do	Cart	Paved	
No	Joins up to it.	do	Brick and Wood	Broken Window	Window	do	do	1 Bin	Asphalted	S.H. communicates with shop. Trap door in floor to cellar underneath.
No	10 yards.	Concrete	Brick	Gratings	Window	do	do	None	Unpaved	Cattle kept in stable, S.H. communicates with shop. ...

10. No water-closet, privy, or cesspool should be constructed within the slaughter-house.

There should be no direct communication between the slaughter-house and any stable, water-closet, privy, or cesspool.

11. Every lair for cattle in connection with the slaughter-house should be properly paved, drained, and ventilated.

No habitable room should be constructed over any lair.

All the Batley slaughter-houses adjoin other buildings, and some of them communicate with the shop and others with the living rooms of the house.

Particulars of the main facts relating to each slaughter-house in the Borough, together with the number of butchers using each building, are given in the accompanying table.

It is obvious that where there are a number of private slaughter-houses it is impossible for regular and systematic inspection of carcasses to be undertaken. The buildings are in different parts of the town and the butchers kill at varying times. Unless the Inspector is present during the slaughtering, it is quite possible for unscrupulous butchers to conceal or destroy diseased organs of animals, the carcasses eventually being sold to the public. My remarks do not refer to the Batley butchers in particular, but are to be taken in the broad sense. It is quite easy for large portions of a diseased carcase to be destroyed and remaining portions which do not show traces of the disease to be sold to the public. Many diseases affect the various animals which are slaughtered by butchers for human food, but Tuberculosis is the disease above all others which is most commonly met with.

The Report of the Royal Commission on Tuberculosis issued in 1898, states that "of all the animals slaughtered for food in Great Britain and Ireland those of the bovine race seem to be more largely affected with Tuberculosis than any other."

In the absence of statistical information as regards our own country, the Report proceeds to show that in Leipzig, of 9,303 cows slaughtered 4,408 or 43.51 per cent. were Tuberculous. The proportion of such diseased cattle in English cow-houses, which has been publicly and authoritatively stated at about 30 per cent. (Prof. MacFadgean, Trans. Brit. Cong. on Tuberculosis 1901) may not be excessive. Most of these cows eventually find their way to the butcher, and their flesh is sold and consumed for human food.

Tuberculosis is an infectious disease, which, amongst other ways, may be contracted by human beings through eating the flesh or drinking the milk from bovines infected with the disease.

There are various other diseases which can readily be acquired by human beings through consuming diseased meat. Amongst other conditions, the result of disease or injury

which renders meat unfit for human food are, Anthrax, Puerperal Fever, Injuries and Bruises, Inflammatory Conditions, Fluke Disease (mostly amongst sheep), Cysticercus Disease, a disease affecting pigs, oxen, and sheep, which causes tape worms in human beings, Trichinae which affects pigs, occasionally proving fatal in the human subject, &c.

At the present time the staff of the Sanitary Department is not large enough to regularly inspect meat whether in private slaughter-houses or in one central place such as a Public Abattoir.

During the year, however, three carcasses were handed over and destroyed, the result of chance visits to slaughter-houses on the part of the Medical Officer.

Some figures giving the quantity of diseased meat destroyed during the year 1909, in several towns may be of interest.

Rotherham ...	...	5,242 lbs., also 120 odd pieces.
Wakefield ...	...	42 carcasses.
Halifax ...	...	19,628 lbs., of which 11,414 lbs. was on account of Tuberculosis alone.
Nottingham ...	...	11,383 stones, 6 lbs.
Newcastle-on-Tyne		266 carcasses and a great number of Plucks, Lungs, Livers, Kidneys, Heads, Tails, Tripe, and Skins to be filled with Sausage Meat.
Bristol ...	...	24 carcasses of Beasts, 42 carcasses of Sheep, 100 carcasses of Pigs, and 8 carcasses of Calves, also many parts of carcasses and odd pieces of Meat.
Croydon ...	...	24,215 lbs., including 72 carcasses.

Many towns have adopted a system by which animals which are to be slaughtered for human food are brought to a central building termed a Public Abattoir. This is the ideal system which every up-to-date Sanitary Authority

should aim at, and such authorities have already provided such slaughter-houses, or are considering the provision of such places. In the City of Edinburgh a well equipped Abattoir has just been erected, following the example of other cities in Great Britain.

In some cases the butchers themselves have erected the Abattoir, but in the great majority of cases the local authority have provided it, and of necessity this is the most desirable arrangement. By this means a place is provided where the slaughter of animals may be carried on in a proper manner. The meat can be inspected after slaughter, before exposure for sale, by a suitable person which in the case of this Borough would be an Inspector of Nuisances, who possessed a Meat Inspector's Certificate in addition. It would not be necessary for the Inspector to devote more than a portion of his time to the meat traffic. A capable man could easily manage this, and have much of his time taken up in carrying out the other duties pertaining to the position of Inspector of Nuisances. The Inspector could always call to his assistance the Medical Officer of Health, and if any doubtful point arose a Veterinary Surgeon could always be asked to consult with the Medical Officer. At the present time a Veterinary Surgeon is an Officer of the Corporation.

Another advantage in having an Abattoir is that the meat is dressed and prepared for sale amidst hygienic surroundings. The Abattoir should be in a convenient position otherwise the cost of transporting meat to the butcher's shops may become too great. This would not be the case in Batley, for a central position could easily be acquired, which would not be any great distance from any of the butcher's shops. This, however, is really a minor consideration, for at the present time butchers who do not have their shops in Batley, slaughter in the town and transport their meat to their shops outside. Steam is needed at an Abattoir for scalding the pigs, gut cleaning, &c., and if a building was erected near the Electricity Works, the site would belong to the Corporation, steam could easily be obtained from the boilers there, which at the present time are partly heated from the refuse destructor, and also electric light would be at hand.

NECESSARY BUILDINGS.

1. Lairage accommodation for animals prior to slaughter.
2. Building for slaughtering and where animals may hang prior to removal.
3. Building for the storage of manure and offal.

DESIRABLE BUILDINGS.

1. Cold Store. This could either be fitted with refrigerating machinery worked by electricity or not. If fitted with refrigerating machinery it would be of great assistance in reconciling the butchers to the Abattoir, for they would be able to make much use of it and save money thereby, especially during the hot weather. Some of them already possess cold safes, but a proper system would be both better and cheaper for them.
2. Dressing room and lavatory for butchers and their assistants.
3. Premises where the preparation of tripe, and gut scraping for sausage skins, could be carried on would be a desirable acquisition.
4. Slaughter-house for diseased animals and Condemned Meat Room. Many Abattoirs contain a room for the destruction of diseased carcasses, but the proximity of the Corporation Destructor to the Abattoir would render this unnecessary.

A Boiler House would not be necessary, the hot water and steam being already at hand from the existing boilers of the Electricity Works.

I am opinion that the butcher who kills the best meat would welcome the provision of a Public Abattoir. He has nothing to fear from inspection and the butcher who kills doubtful animals might be induced to kill better quality meat. Some butchers might kill outside the Borough, and bring in their meat to dispose of it, but it would be an advantage to the trade of each one to be able to produce a

certificate that all his animals were killed in the Corporation Abattoir and inspected there. In any case it is the health of the public which has to be considered, and not the convenience of any one individual, and even if an Abattoir does not always pay financially it pays in being an additional safeguard to the health of the community, by improving the public food supply. Not only do many Abattoirs exist in this country at present, but Germany is very well equipped, as well as the much smaller states, such as Denmark, Holland, Sweden. In the last named country there being the most perfect system of meat inspection in the world.

The following is an extract from an article appearing in the *Lancet* in February, 1907. "In Berlin during 1904 there were 164,815 cattle, 1,004,251 pigs, 165,391 calves, and 441,270 sheep slaughtered and inspected. To carry out the work of inspection there were 47 regular meat inspectors and 15 extra meat inspectors. All animals, excepting horses, intended for the food of man, must be slaughtered in the large central Abattoir provided by the city for that purpose. When an animal leaves the cattle market and passes into the slaughter-house, it comes under the control of the Berlin Municipal Authorities, whose officials are responsible for its further care, till it passes out of the Abattoir dressed and ready for the butcher's shop.

German law divides all meat into four great classes, each of which has a characteristic stamp by means of which it may be recognised :

1. "Tangliches" flesh, that which is quite healthy and which may be exposed in the butcher's shop.
2. "Ninderwerteges" flesh, which comes from animals which are not diseased, but are for some reason in poor condition, and, therefore, cannot be sold as full valued material.
3. "Bedingt Tangliches" flesh, that which on account of the presence of disease in a slight degree must be thoroughly boiled before being eaten.
4. "Untangliches" flesh, that which must not be used for human food.

The butcher is permitted to remove meat stamped as "Tanglich" or quite healthy, to his shop and sell it freely to the public; all flesh bearing any other stamp must remain in the slaughter-house, the Berlin Municipal Officials being responsible for its further treatment and disposal.

During September of 1910, whilst attending the Congress of the Royal Sanitary Institute at Brighton, I had an opportunity of visiting the Public Abattoir belonging to the Brighton Corporation. The building was erected in 1894 at a cost of £11,000, and is capable of accommodating 12 slaughtermen all working at the same time, and has room for 54 beasts, 200 sheep, 20 calves, and 200 pigs. The population of Brighton is 123,478, and, therefore, the sum of £11,000 is considerably more than need be considered in Batley. While it is possible to kill there at a cost to the butcher of 1s. a head for beasts, 6d. for calves, 4d. for pigs, and 2d. for sheep, the butcher has the opportunity of selling the offal, which reduces the net cost 50 to 75 per cent. An interesting exhibition of meat slaughtered there, and showing the signs of disease was presented to us for inspection. Attached to the inside of the ribs of one fore quarter of beef was a mass of Tuberculous nodules. The throat of another animal was in a revolting state, due to the same cause, and there were a number of specimens of diseased portions of carcasses of cattle, sheep, and pigs. These specimens were all from animals recently slaughtered, and it is to be remembered that when taken there for killing the butchers are aware that all carcasses will be inspected, hence there could not be any attempt to deal with those diseased animals knowingly.

A demonstration was given showing how an unscrupulous dealer may strip off the Tuberculous Membrane from the ribs of an animal and sell the carcase. This procedure is of course well known to all Sanitary Officers, but a number of visitors who had had no sanitary training were rather alarmed, and said they would turn vegetarians in future.

Pigs are very liable to catch Tuberculosis.

The Officer of the Abattoir who shewed us round told the company that he knew of a farmer who had a large number of pigs condemned, had his cattle examined, and found the offending cow. The cow was destroyed and from that day he had not had an infected pig. "You see," said the Officer, "he made his butter from the Tuberculous milk from this cow and the pigs caught the disease from the remaining milk which was given to them to drink." The Officer also told us that there is never a week without him getting some Tuberculous meat, but he receives great assistance from the butchers of the town.

It is a question as to whether a butcher should receive compensation. Some persons are in favour of this, whilst others say that a man who knowingly tries to sell the public diseased meat, should not only receive no compensation, but be sent to prison, or dealt with in exactly the same way as any other dishonest tradesman is dealt with who tampers with articles of food. Unfortunately many animals which after slaughter are found to be diseased do not present any evidence of this to the naked eye during life. In fact the fattest animals are sometimes the worst.

To my mind this difficulty could easily be overcome by a system of insurance, which would not be costly if nationally adopted, and even if the public had a slight addition to the cost of their meat, they would be amply repaid by a guarantee of freedom from disease.

In the Sussex cattle markets there is a system of insurance and consequently the butcher is protected from loss, and I did not gather that the cost of meat is increased to the public.

G. H. PEARCE,
Medical Officer of Health.

Public Health Department,
BATLEY.

21st January, 1911.

In connection with Slaughter-houses and the provision of a Public Abattoir, the following is abstracted from "Public Health" for January, 1911.

"Swansea Slaughter-house.—It is so constantly asserted by the opponents of public slaughter-houses that the latter can only be carried on with the assistance of the rates that it is of interest to learn from the annual report of the Swansea public auditors that the net profit on the slaughter-house in that borough for the year ending March 31st, 1910, after providing one year's interest on stock and sinking fund, amounted to £564, an increase of £317 upon the profits of the previous year."

It has been frequently stated that it would be impossible to abolish the existing private slaughter-houses in Batley, were the Corporation desirous of this being done, without paying heavy compensation owing to the belief that once a building has been registered under the provisions of the Public Health Act, 1875, referring to Registered Slaughter Houses the right to slaughter there remains so long as the building stands.

In view, however, of the decision of the High Court given in April, 1907, in the case of Goodwin v. Sale, it is not quite correct to say that slaughter-house licenses granted under the Towns Improvement Clauses Act, 1847, certain sections of which are incorporated in the Public Health Act, 1875, are granted once and for all. The decision referred to made it clear that such licenses are personal and temporary licenses, continuing in force only during the life or occupancy of the original licensees.

OFFENSIVE TRADES.

The only occupations coming under this heading in Batley are five tripe boiling establishments. Their condition is fair and they are kept fairly clean.

ICE CREAM.

The Health Department is aware of 27 persons who make Ice Cream and dispose of it within the Borough.

Cases of disease are frequently traced to this commodity, it not being uncommon in some towns to find cream prepared under most insanitary conditions. During the summer I found, owing to a casual visit paid by me on another matter, that a man in the Borough was preparing ice cream for sale in an unused cellar which communicated with a yard by steps and under disgusting conditions. The result was that he immediately ceased to sell. I found another house where conditions were undesirable, but at the time of my visit ice cream was not being made, and I am unaware it has been made there since, although the man had for some time sold a large amount on Saturday afternoons during the Summer.

Arrangements were made for the more regular and systematic inspection of ice cream premises, and the result has been an increase in the standard of cleanliness.

FRIED FISH SHOPS.

Nuisances occasionally arise in connection with these premises. Seizures of unsound fish may sometimes be made. The fat that the fish is fried in may also be rancid. Arrangements have been made for greater supervision in the future.

During the summer it was reported that a cow had died in a cowshed in Batley under suspicious circumstances, and had been removed in the night to a knacker's yard outside this Borough. On visiting the knacker's premises the proprietor of the yard told me the fat from this animal had been melted down and had been sold to fry fish in. Whether the fat was sold to a Batley fish fryer I do not know. There are certain persons all over the country who are open to purchase such fat, and it is regularly sold for fish frying. Cotton seed oil is the usual vehicle to fry the fish in. It has not been found necessary to take action in the case of any fish fryer in Batley during the year.

SMOKE NUISANCE.

This question is one which has been seriously considered by the Sanitary Committee on several occasions.

There are in Batley a number of mill chimneys in

connection with steam boilers, and it must be admitted in a number of cases much more black smoke than need be is emitted into the atmosphere. Smoke in large quantity in the air of a town is harmful not only to health but to industry. It has been calculated that in London the economic loss is £5,000,000 per annum through erosion of buildings, damage to fabrics in warehouses, &c.

It is well known to sanitarians that towns which are mostly covered by a pall of black smoke which shuts out the sunlight have a higher death rate. Dr. Des Voeux has stated that in Glasgow in the autumn of 1909, black smoke in the form of fog on two separate occasions was responsible for 1,063 deaths. In Paisley recently some interesting experiments have been carried out. Nine open boxes were placed in different parts of the town from November until the middle of January, when they were taken in and the soot and dust carefully measured and analysed. It was found that this amounted to an average of $13\frac{5}{8}$ cwts. per acre. per annum, throughout the town, which covers 3,487 acres. In Glasgow the fall is 15.7 cwt. per acre.

It must not be lost sight of that in large industrial centres there is bound to be smoke emitted from factory and mill chimneys, for it will be only in years to come that the mill chimney, as we know it now, will be no more, machinery then being driven by either electrical power or gas engines.

In the interval those who live in industrial towns like Batley will be obliged to suffer certain discomfort, but that discomfort should be reduced to the minimum. This is not the case at present in Batley. Some owners have adopted methods by which no nuisance now arises from their mill chimneys, but the majority have not. The public has a right to be protected against pollution of the atmosphere, which is unnecessary, and it is not too much to demand that the air we breathe should be as pure as possible. Persons should be prevented from needlessly polluting it in the same manner as they are not allowed to pollute the water supply or the food supply. The causes of excessive emission of black smoke are well known. The chief amongst

them are Shortness of Boiler Power, Defective Draught, and Common Coal. It is also a well established fact that by lessening the emission of black smoke from a chimney by efficient methods of stoking and properly constructed furnaces, greater economy in coal consumption is the result, and hence the manufacturer in a short time regains the money expended in abating the nuisance, through decreased coal bills, the result being less cost to him in the future. There is also greater comfort with improved health to the inhabitants of the district.

During the year a number of observations have been taken and the results laid before the Sanitary Committee, who have ordered notices to be served on the offending parties. There is an indication that in the near future the Committee, whilst refusing to hamper trade in any way, are likely to take legal proceedings against the worst offenders. A usual allowance for the emission of black smoke from chimneys is as follows :—

One boiler 2 minutes per hour.

Two boilers 3 minutes per hour.

Three boilers 4 minutes per hour

Four boilers 6 minutes per hour.

The practice in Batley has been to allow seven minutes in the hour irrespective of the number of boilers which are connected to the chimney.

I wrote to several towns for the purpose of obtaining information as to the practice there in respect to this matter, and the particulars are given herewith.

SMOKE NUISANCE.

Name of Town.	What is the limit in Minutes per hour allowed by your Authority for the emission of black smoke from Factory or Mill Chimneys.	Is there any relation to the number of boilers, and if so please say how many minutes per hour is allowed for each boiler.
LIVERPOOL ...	4 minutes	No.
MANCHESTER ...	6 do.	No.
HULL ...	10 do.	No.
WAKEFIELD ...	10 do.	No.
BRADFORD ...	None.	No.
ROTHERHAM ...	None.	No.
HALIFAX ...	5 minutes.	No.
BARNSLEY ...	6 do. for warning. 10 do. for legal notice.	3 minutes.
KEIGHLEY ...	4 minutes.	No. We have 6 into one chimney which seldom exceeds the limit.
YORK ...	5 minutes for dense black smoke. 20 minutes for black smoke in moderate quantities.	No.
TODMORDEN ...	6 minutes.	No.
CASTLEFORD ...	None.	No.
SALFORD ...	6 minutes.	No.
DEWSBURY ...	There is no definite limit.	No.
SHIPLEY ...	3 minutes.	No.
PUDSEY ...	8 do.	No.
MORLEY ...	It is assumed that the emission of black smoke can be avoided, and in consequence no period of allowance has been fixed. Each chimney is judged upon its merits, having regard to the volume and nature of the trade which is carried on at the works.	
SHEFFIELD ...	6 minutes.	1 boiler 2 minutes 2 boilers 3 do. 3 do. 4 do. 4 do. & over 6 do.
BRIGHOUSE ...	10 do.	No.
LEEDS ...	3 do.	No.

Many complaints were made during the year by residents of Soothill and Upper Batley, with respect to the emission of noxious odours, principally Sulphuretted Hydrogen, from the bye product plant in connection with the coke ovens at the Soothill Wood Colliery.

H. M. Inspector under the Alkali Act (R. D. Littlefield, Esq.) came over on several occasions and I visited the works along with him. Mr. Littlefield found a defect in the plant, which the Company remedied, and since then matters have considerably improved.

A nuisance still arises from the amount of Sulphurous Acid which is given off from the burning pit heap. On occasions this choking smell is intolerable. Persons frequently complain of irritation of the mucous membrane of the nose and throat. There is no doubt this is a serious nuisance and it is certainly detrimental to health. Buildings and metal work are also corroded by the fumes. The matter is one over which Mr. Littlefield has no jurisdiction. The remedy is to quench the burning pit heap. The matter rests between the Corporation and the owners of the Colliery.

SEWERAGE AND SEWAGE DISPOSAL.

For most of the following information I am indebted to the Borough Engineer, O. J. Kirby, Esq.

NEW SEWERS. During the year most of the property at Primrose Hill, consisting of 57 houses which drained into cesspools, has been connected to a new sewer, with the exception of the last 12 which belong to Mr. J. W. Walker. There is no reason for delay, and it is hoped these remaining houses may be promptly dealt with. It appears that all the other houses were connected to the sewer on November 30th, 1910. The sewage is taken by the main sewer in Lady Ann Road.

New sewers are also in process of construction in Track Road and Thorncliffe Road, in connection with the opening out of the Carlton Grange Estate.

The inclusion of part of Soothill Upper Urban District brought in about 1,300 acres for drainage, of which about

700 acres drain into the Dewsbury sewers, and about 600 acres are to be drained into the sewers of the East and West Ardsley District as soon as the sanction of the Local Government Board is obtained. When this latter scheme is carried out the sewerage system of the Borough will be sufficient.

The main outfall works are about six acres in extent and are situated near Bradford Road within the Borough. Owing to the hilly nature of the town and the question of levels and fall, it is not possible to drain every portion into the sewage works, and there are therefore various arrangements made for dealing with the sewage in addition to the Soothill Upper Sewage, as follows.

1. $2\frac{1}{4}$ acres drain into the Dewsbury Sewers (Cresswell Lane.)
2. 60 acres drain into the Heckmondwike Sewers.
3. Small Sewage Works at Howden Clough which purify the sewage of that district.
4. Small Sewage Works at Howley Beck.
5. Small Sewage purification works at Lamplands Nursery

The surface water and storm waters open directly into the Batley Beck or its tributaries.

There are six outfalls for the sewage. The main outfall is $2\frac{1}{4}$ miles long and there are about 28 miles of contributory sewers, exclusive of Soothill Ward.

The sewage gravitates into a detritus tank, except the sewage from Batley Carr which is pumped in. The capacity of this tank is 94,000 gallons. From here the sewage is pumped to a septic tank having a capacity of 1,750,000 gallons, and thence gravitates to bacteria beds. During 1910 three additional bacteria beds have been constructed.

The dry weather flow to the main outfall works at Bradford Road, including trade refuse, is 550,000 gallons in 24 hours.

Storm water beds are provided, 2,800 yards in area and three feet deep.

Ventilation of the sewers is performed by manholes and shafts. The sewers are flushed frequently by special carts which have each a capacity of 300 gallons of water.

POLLUTION OF RIVERS AND STREAMS.

The Batley Beck is polluted by dye waters and trade effluent. The West Riding of Yorkshire Rivers Board deals with this matter. During the year enquiries have been held by the Local Government Board and permission to prosecute certain offenders has been asked by the Rivers Board from the Local Government Board.

PUBLIC LAVATORIES.

The further provision of sanitary accommodation for both sexes has engaged the attention of the Sub-Committee, appointed to deal with this matter on several occasions, and various sites have been viewed. I was asked to obtain particulars as to accommodation in other towns and information of that nature is here appended.

PROVISION OF SANITARY CONVENIENCES IN SEVERAL TOWNS.

Town.	Population.	How many urinals for Men.	How many Water Closets for Men.	Provision made for Females.
MANCHESTER ...	724,520	97	69	6 Public Lavatories.
BRADFORD ...	293,036	65	9	2 Underground Structures containing 12 Water Closets.
SHEFFIELD ...	478,763	61 (297 stalls).	35	4 Conveniences containing 21 Water Closets
HULL ...	280,000	32 (150 stalls).	13	4 Water Closets.
SALFORD ...	244,636	20	3	3 do do
HALIFAX ...	108,000	23	4	10 do do and 7 Lavatory Basins.
HUDDERSFIELD...	100,000	20		6 do do and 3 do do
YORK ...	87,000	27	9	5 do do and 2 do do
ROTHERHAM ...	66,500	15 not including Parks.	Provided at Parks and Cemeteries.	20 do do provided at Parks.
BARNSELY ...	49,000	17	4 (exclusive of those in Parks, Cemetery and Recreation Ground).	6 do do and Lavatory, besides those in the Park, Cemetery, and Recreation Ground.
KEIGHLEY ...	46,600	12	None.	3 do do and Lavatory.
SHIPLEY ...	29,000	9	2	None.
TODMORDEN ...	25,419	16	3	3 Water Closets.
BRIGHOUSE ...	22,000	6	None.	None.
PUDSEY ...	15,000	2	None.	None.
OSSETT ...	14,330	2	None.	None.
MORLEY ...	25,000	3	3	None.
WAKEFIELD ...	52,500	12	6	3 Water Closets.
DEWSBURY ...	28,070	18	2	Lavatory and W. C's in charge of two attendants.
CASTLEFORD ...	20,000	3	6	6 Water Closets in Public Market Lavatory.
LEEDS ...	490,985	40 sets (not including Parks, Stations, &c).	28 (not including Parks, Stations, &c).	10 Water Closets and 9 Lavatory Basins.

MORTUARY.

I would venture to point out the desirability of the erection of a modern building of this type. At present there is no mortuary in Batley. In a town of this size it is essential that it should possess a mortuary. Many inquests are held during the year and a number of post mortem examinations are performed. It is very distressing for the inhabitants of small cottages that these examinations have to be conducted in the homes. It is also insanitary. Several doctors have expressed to me the great need of proper provision of this nature being made. Only recently one doctor told me that had a neighbour not voluntarily offered the use of her kitchen a post mortem examination, ordered by the Coroner, would have had to be carried out in the room in which a mother was laid ill in bed, and the post mortem examination was to be performed on her own child. In the case of an unknown person found dead it is also desirable that a suitable place should be provided for the body to be taken to, instead of it being put into a stable or outhouse on licensed premises.

The Local Government Board have made certain suggestions for the guidance of local authorities in regard to the construction of a mortuary. The cost would not be great and the Corporation possesses plenty of vacant land on which a suitable site could be found.

EXCREMENT AND REFUSE DISPOSAL.

The method of disposal of refuse is partly by burning at the Destructor, partly by sending out of the town by rail in trucks belonging to the Corporation, and partly by tipping.

The Destructor was erected in 1904, for which the borrowing power was £6,061. It is of the Horsfall type and consists of four cells. In addition to burning town's refuse, it generates part of the heat required to keep up steam in the Lancashire Boilers at the Electricity Works. The clinker produced is used for various purposes.

It is usual to provide one cell to every 10,000 of the population, hence the Batley Destructor with its four cells

should be able to destroy all the town's refuse, the population being not quite 40,000. Unfortunately, however, proper provision has not been made for tipping at the Destructor. The space between the feeding doors of the cells and the wall behind is not wide enough to allow sufficient room for the men to work if more than a certain number of loads are tipped. The result is that a limit is put to the amount of refuse which can be allowed to accumulate for the furnaces, and frequently refuse has to be tipped on the road surface instead of into the bunker, which means it has to be handled again, an extra man having to be employed to shovel it into the bunker before it can be got into the furnaces. The remedy is for the well into which the refuse is tipped to be widened. At present money is being lost through these frequent handlings.

During the year, the Destructor has dealt with and destroyed 12,076 loads of refuse. The average number of loads dealt with per week is $232\frac{1}{2}$. The weight of each load averages about 15 cwts. This is a light load, and I would suggest that larger side boards be supplied to the carts so that the average load would not be less than a ton, a cart load being gained thereby in every four removals and saving of expense resulting, for on many occasions a larger load could be taken but the capacity of the cart prevents this, a second journey having thus to be made with consequent additional expense. I went into the relative cost of removal of refuse in this and some neighbouring towns during the year, and I also prepared a tabular statement which is given at the end of this section.

About 26 tons of ashes and fæcal matter are sent away by rail weekly for tillage. It is questionable whether or not this procedure should continue. It has existed for many years before the present Destructor was erected. From a sanitary point of view so far as Batley is concerned no objection can be taken to sending this matter out of the town. The railway trucks are old and continually require repair, and the Inspector has to proceed to Wakefield every Friday to sell the fæcal matter, his services not being available in Batley for the best part of the day. During

the year the sum of £33 18s. 9d. was obtained through selling this nightsoil. Against this is to be set £33 19s. 9d. paid for repair of railway trucks, and £8 4s. 0d. Inspector's expenses. The total is thus an expenditure of £42 3s. 9d. against the sum of £33 18s. 9d. realised. There is also the loss of the Inspector's services for at least half a day each Friday during the time he is out of the town, and this should not be lost sight of. The cost of carting the refuse to the trucks at the railway station is another additional item, and is considerable. I think this matter worth the consideration of the Committee, together with the small area of working space for the men at the Destructor. Were this space enlarged the Destructor would be able to cope, in a more convenient way, with more ashpit refuse than at present.

It was the practice for the Soothill Upper nightsoil to be taken to a tip at Soothill. Since the absorption of this district into the Borough this still continues and it is desirable on sanitary grounds that it should cease. There was also tipping done at Upper Batley, but owing to certain grounds being laid out for tennis playing and games at The Shay, Carlinghow, this tipping was stopped and the refuse sent to level and make up the ground. On the top of this refuse was to be laid soil to the thickness of two feet and grass was to be sown. It was not near property and no houses were likely ever to be built there. From a sanitary standpoint no objection could be taken in this particular case, and no nuisance and no danger to health could arise. In addition, the pressure at the Destructor was eased during the period this levelling up continued. After a time, however, the Committee decided that this tipping should cease. This was quite a different case to an ordinary refuse tip. These of course are well known to be most insanitary and a danger to the health of the inhabitants of any town, and should never be permitted to exist.

At the end of 1910 the extent to which the dry and the water carriage systems prevailed in Batley is here shown.

Dry Methods	{	Dry Ash Places	...	1,661	}	3,364
		Ashpits connected with Privies	...	753		
		Privies	...	1,415		
		Ash Privies	...	1,656		
		Pail Closets	...	293		
Water Carriage System.	{	Water Closets	...	3,047	}	3,379
		Trough and Waste Water Closets	...	332		
		Blocks of Trough and Waste				
		Water Closets	...	101		

The conversion of Privies into Water Closets and the paving of back yards is steadily continuing. 447 privies and 34 pail closets were replaced by 481 sanitary water closets during the year.

216 notices were served upon persons for the abatement of nuisances during 1910. 144 were complied with and 72 remained outstanding at the close of the year.

It is a common practice with many householders in Batley to empty their domestic slops, &c., down the street gullies. This should be stopped. These gullies are simply connected to surface water drains and are not trapped. The consequence is that they act as small cesspools and especially in summer become offensive. The surface water drains, which are not constructed to take sewage, are also of necessity much polluted through this practice. So long as this continues there is a continual danger to health. There are properly trapped gullies and efficient drains provided to all houses to carry off household slops, but at the present time in many cases these drains are never used, the basins being sandstoned and the pipes black leaded.

A walk along many of the streets will at once demonstrate how common a custom this is. I believe it is largely a matter of ignorance on the part of the offenders, but the practice is most insanitary, dangerous to health, and should be put an end to.

Comparative cost of Nightsoil Removal in several neighbouring Towns.

Name of Town.	Annual Cost of Ashpit Cleansing and Nightsoil Removal.	Annual Number of Loads Removed.	Weight of Average Load.	Cost per Load.	Rate of Wages Paid.	Remarks.
MORLEY ...	£ 946	9390	cwts. 22	2/-	Foreman £2 per week 24/- per week	This year larger carts have been adopted, thereby increasing av. weight from 3 to 4 cwts.
SHIPLEY ...	1099	6638	15½	3/3½	25/- per week	
BRIGHOUSE ...	1513	14168	10	2/1½	24/- to 26/- per week	
HARROGATE ...	2770	13781	22	4/-	22/- to 26/- per week	Only 300 ashpits and about 12 privies in Boro. Nearly every house is provided with a s. bin.
WAKEFIELD ...	not known	13560	not known	not known	3/8 to 4/4 per day	
BARNSELY ...	2374	20711	20	2/3½	4/- to 5/- per day	
DEWSBURY ...	1491	11122	15	2/8	24/- per week	
CASTLEFORD ...	1735	10772	20	3/2	3/8 to 5/0½ per day	
DONCASTER ...	1625	9147	20	3/6½	4/- per day	
KEIGHLEY ...	2185	11726	20	3/9	4/- per day	
BATLEY...	1965	15374	18½	2/6½	24/- to 27/- per week Foreman 29/- per week	

These figures are an average for the last three years, with the exception of Wakefield, Castleford, Doncaster, Keighley, which are for two years, and Barnsley and Dewsbury, which are for one year.

FACTORY AND WORKSHOPS ACT, 1901.

“ The Medical Officer of Health of every District Council shall, in his Annual Report to them, report specifically on the administration of this Act in Workshops and Workplaces, and he shall send a copy of his Annual Report or so much of it as deals with this subject to the Secretary of State.”—
Section 132.

ANNUAL REPORT of the Medical Officer of Health for the year 1910, for the Borough of Batley on the Administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Laundries, Workplaces and Homework.

1. INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises. (1)	Number of		
	Inspections (2)	Written Notices. (3)	Prosecu- tions. (4)
FACTORIES (Including Factory Laundries)	76	1	...
WORKSHOPS (Including Workshop Laundries)	37	9	...
WORKPLACES (Other than Outworkers premises included in Part 3 of this Report)	...	...	...
Total	113	10	...

2. DEFECTS FOUND

in Factories, Workshops, and Workplaces.

Particulars. (1)	Number of Defects.			Number of Prosecutions (5)
	Found (2)	Remedied (3)	Referred to H. M. Inspector (4)	
Nuisances under the Public Health Acts.*				
Want of Cleanliness	2	2	...	...
Want of Ventilation ... ..	...	...	...	...
Overcrowding ... ..	...	...	...	...
Want of Drainage of Floors ...	...	...	...	...
Other Nuisances	1	1	...	...
†Sanitary Accommodation {	insufficient ...	2	2	...
	unsuitable or defective ...	9	9	...
	not separate for sexes ...	...	...	...
Offences under the Factory and Workshop Act.				
Illegal occupation of underground Bakehouse (S. 101) ... ..	...	...	...	...
Breach of special sanitary requirements for Bakehouses (S.S. 97—100) ...	...	...	...	...
Other Offences ... ..	...	...	...	...
Total	14	14	...	...

*Including those specified in sections 2, 3, 7, and 8 of the Factory and Workshop Act as remediable under the Public Health Acts.

†Section 122 of the Public Health Acts Amendment Act, 1890, has been adopted. The accommodation required is one closet for 20 persons.

3. HOMEWORK.

Outworker's Lists (section 107):—	Lists.	Out-workers.
Lists received from employers twice in the year		
Nature of work:—Wearing apparel ...	2	2

4. REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year. (1)	Number. (2)
Rag Sorting	105
Boot Repairing	28
Dressmaking	28
Breadmaking	17
Umbrella Repairing	16
Millinery	10
Tailoring	10
Blacksmiths	7
Waste Sorting, etc.	10
Plumbing	8
Joiners	6
Tinplate Working	4
Watch Repairing, etc.	4
Wheelwrights	3
Cycle Repairing	2
Rug Making	2
Carriage Building	2
Stocking Knitting	3
Saddlery	2
Various	17
Total	284

5. OTHER MATTERS.

Class.	Number
Matters notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of the Factory and Workshop Act (S. 133)	—
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (S. 5)	Notified by H.M. Inspector 3
Other	
Reports (of action taken) sent to H.M. Inspector	3
Other	10
Underground Bakehouses (S. 101):—	
Certificates granted during the year	—
In use at the end of the year	—

The following are the details of the defects remedied during the year:—

Workshops Limewashed	2
Workshop. Accumulation of dust beneath Riddle	1
Privies converted to Sanitary Water Closets	6
Pail Privies converted to Sanitary Water Closets	3
Additional Sanitary Water Closets	2

The chief Inspector of Nuisances, Mr. Joseph Lindley, Assoc. R.S.I., has done much work during the year and his services have been of the greatest assistance. His report to me under Article XX. (16) of the Sanitary Officers (outside London) Order, 1910, will be found in the Appendix.

APPENDIX.

The following Tables I, II, III, and IV. are prepared pursuant to an instruction of the Local Government Board.

TABLE I.

Borough of Batley—Vital Statistics of Whole District during 1910 and previous Years.

YEAR.	Population estimated to Middle of each year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
		Number.	Rate.*	Under 1 Year of Age		At all Ages.					Number.	Rate.*
				Number	Rate per 1,000 Births registered	Number.	Rate.*					
1	2	3	4	5	6	7	8	9	10	11	12	13
1900.....	30,198	869	28.8	148	170	585	19.3	17	3	30	612	20.3
1901.....	30,321	903	29.7	189	209	588	19.4	11	4	26	610	20.1
1902.....	30,548	868	28.4	148	171	535	17.5	8	1	22	556	18.2
1903.....	30,734	843	27.4	139	165	540	17.5	14	4	33	569	18.5
1904.....	30,924	818	26.5	193	236	655	21.1	20	11	44	688	22.2
1905.....	31,117	823	26.4	151	183	548	17.6	18	8	53	593	19.0
1906.....	31,314	849	27.1	155	182	502	16.0	7	5	33	530	16.9
1907.....	31,515	753	23.8	123	163	556	17.6	17	10	58	604	19.1
1908	31,720	859	27.0	139	162	536	16.8	23	8	37	565	17.8
1909.....	31,929	736	23.1	86	116.8	428	13.4	23	11	42	459	14.4
Averages for years 1900-1909.	31,032	832	26.8	147	175.7	547	17.6	15	6	37	578	18.6
1910... ..	36,818	823	22.3	107	130.0	488	13.2	27	16	44	516	14.0

* Rates in Columns 4 and 8 should be calculated per 1,000 of the estimated gross population. In districts in which large public institutions seriously affect the statistics, the rates in Column 13 may be calculated on a nett population, obtained by deducting from the estimated gross population the average number of inmates not belonging to the district in such institutions.

NOTE.—The deaths to be included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division The deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term “Non-residents” is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there ; and by the term “Residents” is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The “Public Institutions” to be taken into account for the purposes of these tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums. A list of the Institutions in respect of the deaths in which corrections have been made should be given on the back of this Table.

Area of District in acres {
exclusive of area { 3,222.
covered by water). }
Total population at all ages..... 30,321 } At Census
Number of inhabited houses.....7,312 } of
Average number of persons per house..... 4.1 } 1901.

Table II Vital Statistics of separate Localities in 1910 and previous years.

YEAR.	1. NORTH WARD.				2. EAST WARD.				3. WEST WARD.				4. SOOTHILL WARD.			
	Population esti- mated to middle of each year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.
1908 ...	11,354	320	234	69	12,401	323	187	41	7,965	216	144	29				
1909 ...	11,429	266	173	33	12,483	281	164	32	8,017	189	122	21				
1910 ...	11,505	235	148	28	12,566	267	190	35	8,070	198	119	32	4,677	123	59	12

The figures for the years 1900 to 1907 inclusive are not given, because records have not been kept.

TABLE III.—Cases of Infectious Disease notified during the Year 1910.

NOTIFIABLE DISEASE.	Cases Notified in whole district.						Total Cases notified in each locality.				Number of cases removed to Hospital from each locality.					
	At all Ages.	At Ages—Years.					1	2	3	4	1	2	3	4	5	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.										65 and upwards
Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup)...	60	1	7	41	7	4	24	18	18	...	17	12	7	...	...	36
Erysipelas ...	24	1	...	3	...	18	6	10	..	8	...	...	...	...	...	...
Scarlet Fever ...	35	2	8	23	2	...	17	15	3	...	13	8	2	...	...	23
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	10	...	...	1	5	4	7	3	...	...	7	2	...	...	...	9
Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever ...	2	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...
Measles ...	414	12	199	202	1	...	79	166	52	117	...	...	...	...	...	...
Whooping Cough ...	90	4	38	48	...	...	13	53	10	14	...	...	...	...	...	...
Diarrhoea (Epidemic) ...	30	24	6	...	...	...	18	8	4	...	...	...	...	...	...	...
Totals ...	665	44	258	318	15	28	164	275	87	139	37	22	9	...	...	68

Isolation Hospitals, Oakwell Joint Hospital, Birstall. Total available beds, 52; cots, 20. Number of Diseases that can be concurrently treated, 4.

Dewsbury Joint Hospital, Earlsheaton. Total available beds, 90, cots, 32. Number of Diseases that can be concurrently treated, 4.

TABLE IV.

Causes of, and Ages at, Death during Year 1910.

Causes of Death.	Deaths at the Subjoined Ages of "Residents" whether occurring in or beyond the district.							Deaths at all Ages of "Residents" belonging to Localities, whether occurring in or beyond the district.				Total Deaths whether of "Residents" or Non-Residents' in Public Institutions in the district
	All ages.	Under 1 year	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and up-wards	North Ward	East Ward	West Ward	Soot-hill Ward	
1	2	3	4	5	6	7	8	9	10	11	12	13
Small-pox ...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ...	3	1	2	...	...	...	...	...	2	...	1	...
Scarlet fever ...	1	...	1	...	...	...	...	...	...	1	...	...
Whooping-cough ...	4	2	1	1	...	...	...	2	1	1	...	1
Diphtheria (including Membranous croup) ...	7	1	1	5	...	...	...	2	1	4	...	...
Croup ...	...	...	...	...	...	...	...	...	...	...	...	...
Fever { Typhus ...	...	...	...	...	...	...	...	...	...	...	...	...

Other c't'd ...	2	...	...	...	...	2	...	1	1	...	...	...
Epidemic influenza ...	5	...	...	...	...	3	2	1	1	1	2	...
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...
*Diarrhoea ...	8	7	1	...	...	...	...	5	2	...	1	...
*Enteritis ...	5	3	1	...	...	...	1	2	2	...	1	1
*Puerperal fever ...	2	...	...	...	...	2	...	...	2	...	...	...
Erysipelas ...	2	1	...	...	...	1	...	...	...	...	2	...
Phthisis (Pulmonary Tuberculosis) ...	27	...	...	...	7	18	2	11	11	3	2	...
Other tuberculous diseases ...	12	4	5	1	1	1	...	5	4	2	1	1
*Cancer, malignant disease ...	39	...	...	...	...	22	17	11	12	10	6	...
Bronchitis ...	55	15	4	...	...	14	22	11	30	9	5	1
Pneumonia ...	30	5	10	3	1	8	3	8	8	9	5	...
Pleurisy ...	2	...	...	...	1	1	...	...	2	...	...	...
Other diseases of Respiratory organs ...	7	3	...	...	...	2	2	1	1	1	4	1
Alcoholism ...	1	...	...	...	...	1	...	...	...	1	...	...
Cirrhosis of liver ...	1	...	...	...	...	1	...	...	1	...	...	...
Venereal diseases ...	...	...	...	...	...	...	...	...	...	...	...	...
Premature birth ...	25	25	...	...	...	...	...	4	8	12	1	...
Diseases and accidents of parturition ...	5	...	...	...	...	5	...	1	1	1	2	...
Heart diseases ...	49	1	...	...	1	27	20	15	21	6	7	2
Accidents ...	8	...	2	...	...	4	2	1	5	2	...	6
Suicides ...	4	...	...	...	...	2	2	2	1	1	...	...
Diseases of blood vessels ...	48	...	...	...	...	23	25	17	16	13	2	1
Diseases of urinary organs ...	34	...	...	3	3	21	7	12	13	6	3	...
Old age ...	27	...	...	...	...	1	26	8	8	7	4	...
Diseases of Nervous System ...	35	14	3	2	2	5	9	10	12	9	4	...
All other causes ...	68	25	5	6	1	19	12	18	24	20	6	2
All causes...	516	107	36	21	17	183	152	148	190	119	59	16

*SEE NOTES AT BACK.

NOTES TO TABLES IV. AND V.

- (a) In Table IV., all deaths of "Residents" occurring in public institutions, whether within or without the district, are to be included with the other deaths in the columns for the several age groups (columns 2-8). They are also, in columns 9-15, to be included among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrars. Deaths of "Non-residents" occurring in public institutions in the district are in like manner to be excluded from columns 2-8 and 9-15 of Table IV.
- (b) See notes on Table I. as to the meaning of "Residents" and "Non-residents," and as to the "Public Institutions" to be taken into account for the purposes of these Tables. The "Localities" in Table IV. should be the same as those in Tables II. and III.
- (c) All deaths occurring in public institutions situated within the district, whether of "Residents" or of "Non-residents," are, in addition to being dealt with as in note (a), to be entered in the last column of Table IV. The total number in this column should equal the figures for the year in column 9, Table I.
- (d) The total deaths in the several "Localities" in columns 9-15 of Table IV. should equal those for the year in the same localities in Table II. sub-columns c. The total deaths at all ages in column 2 of Table IV. should equal the gross total of columns 9-15, and the figures for the year in column 12 of Table I.
- (e) Under the heading of "Diarrhœa" are to be included deaths registered as due to Epidemic diarrhœa, Epidemic enteritis, Infective enteritis, Zymotic enteritis, Summer diarrhœa, Dysentery and Dysenteric diarrhœa, Choleraic diarrhœa, Cholera (other than Asiatic or epidemic), and Cholera Nostras.

Deaths from diarrhœa secondary to some other well-defined disease should be included under the latter.

Deaths from Enteritis, Muco-Enteritis, Gastro-Enteritis, and Gastritis (see under the heading Diarrhœal Diseases in Table V.) in Table IV. and V. should be placed immediately below, but separately from, those enumerated under the heading Diarrhœa as defined by enumeration above. This is particularly important for deaths under one year of age, as many of the deaths in infancy returned as due to Enteritis are really caused by Epidemic Diarrhœa. In the course of years, by the adoption of this recommendation, it will be practicable to ascertain the probable amount of transfer between these different headings.

- (f) Under the headings of “ Cancer ” and “ Puerperal fever ” should be included all registered deaths from causes comprised within these general terms. Thus : Under “ Cancer ” should be included deaths from Cancer, Carcinoma, Malignant disease, Scirrhus, Epithelioma, Sarcoma, Villous tumour, and Papilloma of bladder, Rodent ulcer. Under “ Puerperal Fever ” are to be included deaths from Pyæmia, Septicæmia, Sapræmia, Pelvic peritonitis, Peri- and Endo-Metritis occurring in the Puerperium.
- (g) Under “ Congenital Defects ” in Table V. are to be included deaths from Atelectasis, Icterus neonatorum, Navel hæmorrhage, Malformations and Congenital hydrocephalus.
- (h) Under “ Tuberculous Meningitis ” are to be included deaths from Acute hydrocephalus.
- (i) Under “ Other Tuberculous Diseases ” are to be included deaths from Tuberculosis, Tuberculosis of bones, joints and other organs, Lupus and Scrofula.
- (j) All deaths certified by registered Medical Practitioners and all Inquest cases are to be classed as “ Certified ” ; all other deaths are to be regarded as “ Uncertified.”

REPORT OF THE CHIEF INSPECTOR OF NUISANCES.

TO THE MEDICAL OFFICER OF HEALTH.

SIR,

I beg to present to you my report on the work done under my supervision during the year 1910.

GENERAL SUMMARY.

Complaints registered	...	...	...	358
Notices and letters served	...	...	...	427
Noticed Personally	...	...	...	50
Houses Visited	...	...	...	520
Visits to Infected Houses	...	...	...	396
Houses damp or roof defective	...	...	...	13
Drains Inspected	...	...	...	400
Drains found defective	...	...	...	74
Drains tested and found defective	...	...	...	6
Defective Rain Water Pipes or Eave Spouting	...	...	...	10
Yards Paved or Asphalted	...	...	...	71
Privies converted into Sanitary Water Closets	447	}		481
Pail Closets converted into Sanitary Water Closets	...			
	...	...	34	
Additional Sanitary Water Closets	...	...	...	132
Smoke Observations taken	...	...	...	64
Food Samples for Analysis purchased	...	...	...	67
Nuisances from Keeping Animals	...	...	...	15
Nuisances from Manure Accumulation	...	...	...	21
Nuisances from Overcrowding Houses	...	...	...	13
Nuisances reported upon	...	...	...	710
Nuisances Abated	...	...	...	434
Visits to Common Lodging Houses	...	...	...	24
Visits to Cowsheds and Dairies	...	...	...	172
Visits to Mills and Workshops	...	...	...	113
Visits to Fried Fish and Chipped Potatoes Shops	553	...	...	...
Visits to Slaughter Houses	...	...	...	672
Visits to Ice Cream Places	...	...	...	221
Visits to Tripe Boiling Places	...	...	...	110
Summonses taken out	...	...	...	4
Magistrates order obtained	...	...	...	1
Application for Yearly Registration of Slaughter-house	...	...	...	1

I have regularly visited the Public Market on Market days, viz., Fridays and Saturdays, and carefully watched the meat stalls, and inspected the food exposed for sale, also inspected the Butchers, Greengrocers, and Poultry Dealers' shops. Nine baskets of Greengages (about 216 lbs.) were surrendered and destroyed as being unsound. The salesmen were cautioned.

I am, Sir,

Yours obediently,

JOSEPH LINDLEY, Assoc. R.S.I.

Chief Inspector of Nuisances.

Public Health Department,

Batley.

Table showing for each month the number of Ashpits, &c., emptied, and loads removed.

	Jan	Feb.	Mar.	Apr.	May	June	July	Aug	Sep.	Oct.	Nov.	Dec.	Totals
No. of Slaughter Cans emptied ...	239	224	261	252	207	239	255	215	251	265	323	351	3082
" Pails emptied ...	1199	1109	1174	1219	1131	1120	1155	1104	1029	1110	1130	1073	13553
" Fish Places emptied ...	449	384	412	424	411	414	424	409	414	452	381	420	4994
" Ashpits emptied ...	4467	5115	5165	5753	5137	5829	7476	8605	8197	7959	7952	8383	80038
" Loads of Nightsoil delivered into Trucks	208	190	214	220	184	200	151	125	109	190	170	138	2099
" " carted and delivered to Farmers ...	140	120	102	30	19	14	18	13	9	42	61	33	601
Totals...	348	310	316	250	203	214	169	138	118	232	231	171	2700
" Trucks loaded with Nightsoil ...	19	17	19	19	15	17	13	11	10	17	15	12	184
" Loads Rubbish destroyed by Destructor	1083	912	1002	1115	950	940	1027	998	978	915	1229	927	12076
Bunkers Lane Quarry (Clinker Ashes) ...	4	7	4	1	3	2	1		1		2		25
W. C. Boocock's Tip, Howden Clough		21	34		7	31							93
Mrs. Wilson's Tip, Upper Batley	28	116	109		44	68				115			480
Grange Road Tip, Soothill ...										193	116	149	458
Carlinghow Shay ...												216	216
Totals...	1115	1056	1149	1116	1004	1041	1028	998	979	1223	1347	1292	13348

HEALTH VISITOR'S REPORT.

TO THE MEDICAL OFFICER OF HEALTH.

SIR,

I beg to present my Report on work done by me since my appointment. On July 1st, 1910, I commenced my duties as Health Visitor to Batley. From that date to the end of the year, my visits were as follows :—

Visiting Mothers and Infants.

On receipt of notification	...	435
Re un-notified Births	...	21
Expectant Mothers	...	20
Re Deaths of Infants	...	45
Revisits	...	1693

Consumption.

Visiting Patients	...	45
Visiting homes on Death of Patient		8
Various other visits	...	208
Total	...	<u>2475</u>

First Visits. Mothers are visited as soon as possible after receipt of notification of birth. Advice is given, where necessary, with regard to the health of mother and child, and directions about feeding, clothing, cleanliness and general management. These visits are looked forward to and appreciated by most mothers, and great interest is shewn when baby is weighed. In some cases, superstitious objections are raised concerning the weighing of infants, but these objections are infrequent.

The few births not notified, come under my notice in the Registrar's weekly returns. These are visited in the same way as the others, but inquiry is made as to why the birth was not notified, the Act is explained, and the father's liability under it pointed out.

Subsequent visits are paid in most cases and as often as each demands. Many mothers seem quite eager for these, and indeed consider baby neglected if not visited often.

Babies' Welcome. Tuesday afternoons are devoted to meeting mothers with their infants in the Town Hall. Here the babies are inspected and weighed, and advice is given as to the many little difficulties, especially with regard to feeding, that young and inexperienced mothers so often need to talk over with someone able to advise them for the best. Samples of baby clothes are shewn and discussed, and the advantages of warm light clothing pointed out.

Half-Hour talks with Mothers have been held during November and December in a poor part of the district. These have been much appreciated by the mothers attending and they lend rooms, in turn, for the talks, most willingly. There has been a freedom of discussion on suitable subjects, that would be quite impossible at a formal lecture. The subjects have been:—The feeding, clothing, and training of young children; preventable diseases of children and how to prevent them; the Children Act, &c. The success of this new departure justifies a repetition of the Talks in another poor district, during the winter months.

Several cases of Diarrhœa were visited during September and October, possible causes inquired into, suggestions made as to management, and instructions given for making barley water and albumen water if ordered by the doctor in attendance. Other cases of sickness or improper feeding have been visited, to see that the doctor's orders are being intelligently carried out.

The unsatisfactory state of health of many little ones is due more to ignorance than conscious neglect, or even indifference on the part of the mother, and much remains to be done in the way of advising in such cases. I was called in to see a little child, nearly two years old, with signs of tubercular disease. The mother said that up to nine or ten months old she was a fine healthy child, but she was put out to nurse with a "poorly young woman,"

and the child has failed ever since. That "poorly young woman" died of consumption a few months ago. The child's health seems to be improving slowly, with suitable food and more fresh air; but the mischief done by a consumptive nurse will take a long time, at best, to remedy.

Cases of wilful and persistent neglect will crop up sometimes and are very discouraging, as that of a little child whom I visited many times. Mother was out as often as in, but whenever I caught her I urged strongly the necessity of cleanliness, fresh air and proper feeding for the child. She seemed so unheeding of advice that I said that if baby died, and there was an inquest, I should not shield her from blame. The child died, and there was an inquest, but I did not hear of it in time to attend.

But on the whole the work is most encouraging, and grateful mothers very often tell me of the good done to baby by some trifling change made at my suggestion. A much greater and more intelligent interest in their children is awakening among the mothers. And it is from this class that we hope to raise a healthy, sturdy, clear-brained working class to safeguard the future of Batley.

There are 13 Registered Midwives practising in the district, and they have taken, in all, 81 cases in the six months. Four emergency cases were assisted by unqualified women. There are no Midwives, qualified by examination, practising in the district. This may partly account, perhaps, for the very large percentage of deaths of twins and premature infants among the deaths of children under one year. These weakly little beings need all the care that knowledge, as well as experience, can bestow; and it is looked upon too much as an accepted fact by untrained midwives of the old type that twins and premature babies do not live, and those that do survive are only the exceptions that prove the rule.

Consumption. I have made 45 visits to consumptive patients, advising as to prevention of spread of the disease,

and urging the importance of fresh air and sunshine, both indoors and out.

I have also visited eight homes where patients have died from consumption, to make the necessary arrangements about disinfection. In no case have these visits been resented as intrusion.

I have reported to you 69 cases of nuisance from insanitary state of premises observed by me during the performance of my work as Health Visitor. The recent improvements in sanitary accommodation must have the effect of raising the moral tone and self-respect of the lower classes in Batley and should help to lift the management of the home and domestic life to a higher level.

I am, Sir,

Yours obediently,

MARGARET EVELYN HARRIS,

Cert. R. San. Inst., Cert. C.M.B.

BOROUGH OF BATLEY.

**REPORT OF THE SCHOOL
MEDICAL OFFICER
FOR THE YEAR
1910.**

To the Chairman and Members of the Education Committee.

Ladies and Gentlemen,

I herewith present to you for your consideration, the Third Annual Report on the Medical Inspection of School Children under the Education (Administrative Provisions) Act, 1907, in the Borough of Batley.

The procedure followed by me has been on the lines indicated by the Board of Education in Circular 596.

During January, Dr. J. M. Clements left the town, having taken up another appointment, and I myself assumed office on March 1st. These changes of necessity caused an unavoidable break in the work, and it was well into the month of April before it was possible to commence the routine medical inspection in the schools.

On the first day of April, 1910, the Borough boundaries were extended, the greater portion of the Urban District of Soothill Upper being absorbed. This increased the number of elementary schools in Batley from 10 to 13, together with an addition to the number of children coming under the scope of medical inspection.

I, therefore, commenced my work in Batley with 13 schools, the total number of children on the school registers being 5,599 against 4,772 in 1909. During 1910 the number of routine medical inspections undertaken by me in the schools amounted to 1,662 against 1,289 in 1909 and 793 in 1908. The non-routine examinations and examinations at the office amounted to 622, so that the total number of children in the elementary schools examined by me during the year amounted to no less than 2,284 or 40.8% of the whole children on the school registers. Of these 1,662

children examined, 38% were found free from classified defect, excluding defective teeth, whilst 62% were found to be defective in some major or minor degree. Many children were referred for subsequent examination, and a number of children have been specially brought under my notice by the teachers and School Attendance Officers.

The percentages and figures throughout this report, deal, except where otherwise stated, solely with children seen at the routine inspections.

GENERAL REVIEW of the HYGIENIC CONDITIONS PREVALENT in the SCHOOLS. A systematic examination of the hygienic conditions was made by me in the case of each school after the conclusion of the work of inspection of the scholars, and, in addition, the Head Teacher, who accompanied me on each occasion was asked to mention any circumstance which he, or she, had observed as being expedient to have remedied. In most cases the remedy for the defects found is comparatively simple, but I give a complete list of the results of my observations in each school. It is not suggested that any or all of these matters should be dealt with immediately, my object being simply to place on record what, in my opinion, would be beneficial to the health of the scholars and teachers in the various school buildings in the Borough, and I fully realise that notwithstanding the fact that the Batley Education Committee is most anxious to carry out any measures bearing on the health and well being of the children in their schools, there is the ever recurring spectre of increased rates and greater expenditure which of necessity frequently thwarts the best intentions of the Committee. In some cases several of the suggested alterations have already been carried out during the period which has elapsed since my visit and the preparation of this report.

Lighting in some instances was found deficient in quantity, and in others was admitted from a wrong direction, but in some of the cases this could be remedied by moving the desks into some other position.

Ventilation was frequently found to be insufficient, but this was not invariably due to structural defects but to the fact that full advantage was not always taken by the teachers of the amount of ventilation available.

A very commendable practice which I should like to see observed in all the Batley Schools, is to have all the windows thrown open in every class room during the intervals for play and also during the mid-day recess. By this means any foul air is got rid of and a fresh supply of pure air obtained. Children working in a vitiated atmosphere are quite unable to exercise their brain capacity to the extent normally in their power, and hence the teacher's efforts are not so well rewarded as in most cases they deserve to be.

In some cases the heating was deficient. It is desirable that a thermometer be hung as near as possible to the centre of each class room and the temperature of the school room recorded on a card hanging near it, at 9 a.m. and again during the afternoon session. This would also afford opportunity for the children to learn the use of the thermometer.

Occasionally it may be found that the temperature at the opening of the school may be too low and later it increases, due partly to the heat radiated from the bodies of the children. The most comfortable temperature and the one in which the intellect of the children can work to the greatest advantage is 60 degrees F. It should never be above 65 degrees F. in Summer, or below 55 degrees F. in Winter.

Before coming to Batley I have not infrequently been in schools where the temperature in Winter has been as low as 40 degrees F. This of course makes it hopeless for much benefit to be obtained by the children from the instruction imparted to them, their one idea being how best to keep warm, apart from the risk to their health.

In some of the schools the seating accommodation is not all that could be desired, but I was informed by several of the teachers that the Education Committee are gradually

withdrawing obsolete desks and replacing them by modern ones. In some schools the old long desks without backs are prevalent, and owing to their length it is impossible to so arrange them as to take full advantage of the light. Substitution by dual desks will to a great extent remedy this.

The following suggestions are offered in the case of each school excepting Mill Lane, Hanging Heaton. No remarks are made respecting the sanitary state of this building as I understand plans have been passed for alterations and the work is about to commence. It would be of benefit to all parties concerned if the School Medical Officer had the opportunity of seeing the plans of proposed alterations in connection with any existing school or the construction of new school buildings.

BROWNHILL C. E. SCHOOL.

Accommodation, Mixed 207; Infants 66; Total 273.

CLASS ROOM B. Wall damp owing to need of repair to defect in roof.

LARGE ROOM. Ventilator recently put into roof allows rain to drop through ceiling occasionally.

PLAYGROUND. This should be asphalted.

CONVENIENCES. It is desirable that the existing privies should be abolished and sanitary water closets substituted. At the present time the unpaved yard is polluted by soakage from the contents being thrown on to its surface during the process of emptying.

There are a number of obsolete desks in this school.

WARWICK ROAD COUNCIL SCHOOL.

Accommodation, Boys 264; Girls 195; Infants 239; Total 698.

GIRLS DEPARTMENT.

LAVATORIES. Wood work in connection with wash basins should be removed.

Floor in need of repair, there being a loose flagstone and a broken grating.

STAN. V. ROOM. Ventilation deficient. More windows should be made to open.

This room is also dark. An improvement by which more light could be obtained would be to put a window in the wall between this room and Stan. VI. and VII. room.

This room is also very close and stuffy. It is situated over the heating apparatus and the teacher complained to me about the fumes from this, which she stated came up through the floor.

STAN. II. ROOM. The fireplace in this room should be re-opened. A cupboard has been built into it. This should be removed, for a chimney is a good ventilator and under present conditions the cupboard effectually prevents this.

INFANTS DEPARTMENT.

More windows should be made to open than is the case at present in the class rooms of this school.

LAVATORIES. Woodwork should be removed from the basins.

The floor is in need of repair.

URINAL. On the occasion of my visit this was not in a cleanly condition and gave off a strong ammoniacal odour. A glass roof has been built over this erection and therefore any noxious smells arising are to a large extent kept inside the urinal. The roofing should be removed either wholly, or in part.

BOYS DEPARTMENT.

LAVATORIES. Woodwork should be removed.

Cupboards underneath will not open owing to presence of a hot water pipe which passes in front of them. These cupboards should be abolished.

STAN. III. ROOM. Additional ventilation required. Tops of all windows should be made to open.

STAN. V. ROOM. This room is dark and more light is needed. Possibly this could be obtained by putting a window in the wall dividing this room from Stan. VI. room.

STAN. II. and IV. CLASS ROOMS. Here the seats

were in a wrong position at the date of my visit. They should be arranged across the room to obtain a better light. In their present position shadows are thrown on the books of the scholars.

The fall pipes in connection with the Warwick Road School Buildings are in need of attention.

FIELD LANE COUNCIL SCHOOL.

Accommodation, 201 Infants.

LAVATORY. Wood work around basins should be removed and the cupboards underneath the basins abolished.

CLOAK ROOM. The hat pegs are too close together.

STAINCLIFFE C. E. SCHOOL.

Accommodation, Mixed 246 ; Infants 91 ; Total 337.

Various alterations of a sanitary nature have been recommended at this school previously. Plans have been prepared and submitted to the proper authority, and such plans have been approved. Great benefit will result to the scholars and teachers on the completion of the new work.

The lighting of this school has been also considerably improved by the carrying out of the various suggestions made by my predecessor.

HEALEY COUNCIL SCHOOL.

Accommodation, Mixed 198 ; Infants 174 ; Total 372.

MIXED DEPARTMENT.

CLASS ROOM A. More window space is needed in this room, the lighting at present being insufficient.

MAIN ROOM. Here the desks are wrongly arranged. They should be so placed as to give left side light, but at present difficulties of space are an obstacle to this.

CLASS ROOM B. Lighting might be improved as in Room A.

CLOAK ROOMS AND LAVATORIES IN ALL DEPARTMENTS. These should have the woodwork removed from about wash basins. Stands are also desirable for hats and

coats, the present accommodation being limited and on the occasion of my visit a number were on the floor.

BOYS CLOAK ROOM. Here the entrance is obstructed by a large buttress which should be removed if possible.

CARLINGHOW COUNCIL SCHOOL.

Accommodation, Boys 191; Girls 190; Infants 239; Total 620.

INFANTS DEPARTMENT.

ROOM A. Here the atmosphere gets very close owing to the heating apparatus being under the floor. Ventilation is insufficient.

The windows should be lowered two to three feet in order to provide better lighting.

CLASS II. Desks obsolete. Back rests very desirable.

ROOM C. Windows should be lowered about two feet to provide better lighting.

CLOAK ROOM. Rather cramped and hat pegs too close together.

LAVATORY. The woodwork about the basins requires removing, and cupboards underneath should also be abolished.

GIRLS DEPARTMENT.

LAVATORY AND CLOAK ROOM. The remarks in reference to the Infants Department apply equally here.

BOYS DEPARTMENT.

CLASS ROOM C. This room becomes very close through the heating apparatus being situated under the floor.

LAVATORY. This presents the same defects as in Infants and Girls Departments.

ST. MARY'S R. C. SCHOOL.

Accommodation, Mixed 406; Infants 169; Total 575.

MIXED DEPARTMENT.

The desks are comparatively modern, but the type is obsolete.

At the time of my visit the floor was in need of cleansing, but the caretaker informed me this condition was owing to the fact of there having been a social gathering in the school the previous evening.

STAN. I. ROOM. The desks are the same as in the Mixed Department.

INFANTS DEPARTMENT.

The younger children use obsolete desks, but older children are supplied with modern desks with back rests.

Water closets in connection with all departments should have the iron pipes attached to them painted. At the time of my visit they were all very badly rusted and some paint applied at once would save greater expense in the future.

PURLWELL COUNCIL SCHOOL.

Accommodation, Boys 276; Girls 300; Infants 255; Total 831.

INFANTS DEPARTMENT.

This school was very cold at the time of my visit, November 18th, and the teachers informed me that this is always the case in comparison with other parts of the school, excepting a portion of the Boys Department.

Lighting is also defective, but it is not easy to readily devise a remedy, the aspect of the department being north and hence sunlight never directly enters the class rooms.

ROOM A. This room is dark and more lighting is necessary.

Desks with back rests are desirable.

ROOM C. Desks as in Room A.

ROOM D. The fireplace which is blocked up should be re-opened to allow the chimney to act as ventilator.

LAVATORY. Wood work and cupboards in connection with wash basins should be removed and modern basins put in. It would be a great improvement if this lavatory could be converted into a class room for the babies. It has a south aspect and at the time of my visit was full of sunlight whilst the other part of the Infant School was dark and in

the shadow. There is also a fireplace and chimney in this lavatory, and in my opinion much better use could be made of it than is done at present, if it was used as a classroom.

GIRLS DEPARTMENT.

ROOMS B and E. An advantage would be gained by the removal of the ribbed glass and the substitution of plain glass, to improve the lighting.

ROOMS F, D, and C. These rooms are very dark owing to their position.

BOYS DEPARTMENT.

STANS. I. and III. ROOMS. These are both dark owing to their position, but in any case more window space is needed.

STAN. IV. ROOM. This room is very dark. An improvement in the lighting might be obtained by putting a window into the wall dividing this room from Stan. II. room.

HANGING HEATON C. E. SCHOOL.

Accommodation, Mixed 155; Infants 69; Total 224.

MAIN ROOM. The desks are obsolete and wrongly arranged. They should be placed across the room in order that side light may be obtained, and shadows which are thrown on the books of the scholars prevented.

CLASS ROOM I. Here the same conditions respecting desks and lighting prevail as in the main room.

YARD. This should be paved in great part.

PAIL CLOSETS. These are provided at this school. They are most insanitary, and their abolition and substitution by water closets is very desirable. There is some difficulty in this, however, owing to the level of the closets and the level of the main sewer. In the girls conveniences at the time of my visit, the pails were only partly under the seat, the result being that a large percentage of what should have been caught by them went elsewhere, thus making matters worse and polluting the ground surface.

WEIGHING MACHINE. There has never been a weighing machine in this school, the County Council not having

provided one before the school was taken over by the Borough of Batley. Previously to each of my visits of inspection the children have had to be sent to Mill Lane School in order that their heights and weights could be recorded.

GREGORY STREET COUNCIL SCHOOL.

Accommodation, Girls 127; Infants 119; Total 246.

At the time of my visit this school was badly in need of colour washing and cleansing. The school came under the control of the Batley Education Authority along with Hanging Heaton Church School and Mill Lane School, on April 1, 1910. The walls were covered with layers of dust, the accumulation of a considerable period evidently. I was informed that some years had elapsed since the last renovation, and probably this was owing to the fact that a change of authority had been known to be probable, and hence caused uncertainty.

The uncleanly condition of this school was in the first instance brought to my attention by a doctor in the town, who had been the recipient of complaints from the parents of some of the children attending the school.

STANS. III., IV., V., VI., VII. These would be benefited by the substitution of more modern desks. In Stan. III. and IV. room some of the desks are wrongly arranged with respect to light and this was pointed out to the teacher.

STANS. I. & II. ROOM. Here the classes are separated by a curtain. This is not a desirable method and the substitution of a glass screen would be an improvement.

CLOAK ROOM. This would be benefited by some further heating pipes being put in, and in the Infant Lavatory an improvement would be to have the wood work round the basins removed.

BATLEY C. E. SCHOOL.

Accommodation, Mixed 256; Infants 138; Total 394.

MAIN ROOM. Stan. V. desks were wrongly arranged respecting sufficiency of light, but owing to want of space a difficulty arises.

MAIN ROOM (2nd portion) Stan. II. Here an advantage would be gained if more windows were made to open.

GIRLS CLOAK ROOM. More space between the pegs is desirous in order to prevent overlapping of hats and clothing belonging to different children.

CLASS ROOM A. There is here a window in the roof with part of the ceiling remaining below it. The result of this is that the light admitted by the window is prevented by the protrusion of the ceiling below from falling on the scholars and is focussed about the centre of the opposite wall. The protruding ceiling should be cut away and the window made to open. By this means additional light and ventilation would be secured.

The Head Master told me that owing to the proximity of this school to Stocks Lane, which is paved with heavy blocks of stone, and the large amount of carting which takes place up and down this thoroughfare, difficulty is experienced in carrying on the work of the school owing to the noise caused by the passage backwards and forwards of the horses and carts. I experienced this myself at the time of my visit. If it were possible to deal with the particular part of the road opposite the school in such a manner as to cause a deadening of the noise complained of, much advantage would be gained by both pupils and teachers.

PARK ROAD COUNCIL SCHOOL.

Accommodation, Boys 264; Girls 224; Infants 252; Total 740.

BOYS DEPARTMENT.

DIV. F. ROOM. This room is rather dark. A top light would be an improvement.

CLASS ROOMS A and B. These would be improved by cross ventilation, which could be obtained by having more windows made to open.

CLASS ROOMS C and D. More windows should be made to open.

LAVATORY. This requires modernising and the gulley in the floor on to which the waste pipe discharges should be

abolished, together with the present hole through the wall, and more modern sanitary methods adopted.

CLOAK ROOM. More space would be advantageous.

INFANTS DEPARTMENT.

CLASS I. More windows should be made to open.

This room is also dark. Additional lighting could be obtained if a window was inserted in the wall dividing this room from the Babies Class Room, and if the window was made to open cross ventilation would be obtained, which would be an improvement, the present ventilation not being good.

CLASS ROOM A. A door opening from this room directly into the playground would be a distinct advantage.

LAVATORY BASINS. These need modernising.

CLOAK ROOM. This would be improved by more space.

GIRLS AND INFANTS WATER CLOSETS. At the time of my visit water was standing in front of the girls water closets and to get into them it was necessary for the girls to walk through this water. The Caretaker told me this was always the case in wet weather. A remedy would be to alter the surface level at this particular place so as to give a slight fall, or to put in a gully.

GIRLS DEPARTMENT.

LAVATORY. This would be improved by modernising.

ROOM A. More window space would be advantageous and could be obtained by lowering the present window.

ROOM B. More window space would be advantageous and could be obtained by lowering the present window.

STAN. III. ROOM. Ventilation here is bad. More windows should be made to open.

STAN. VI. ROOM. Here the lighting is poor and a top light would improve matters.

STAN. II. ROOM. More windows should be made to open.

These three latter rooms are lighted by gas during the winter afternoons. The illumination is poor and the present ordinary burners should be abolished and incandescent mantles substituted.

WATER SUPPLY FOR DRINKING PURPOSES.

In the schools of this Borough, in common with most other schools throughout the country, a number of drinking mugs are kept in lavatories from which each child may drink after filling with water from an ordinary tap, or in the alternative there is a metal cup secured by a chain as in the case of a public drinking fountain. The dangers of infection being communicated from child to child by this method are obvious in addition to there being other objections on the ground of cleanliness. A metal cup under the above conditions in any school is particularly liable to convey Impetigo Contagiosa and other forms of contagious diseases, and hence very undesirable. In many cases however my experience has shown me that children do not even trouble about the drinking vessels, but apply their mouths directly to the tap itself.

A method by which these practices can be prevented is most desirable. A certain firm of manufacturers of sanitary appliances have introduced a drinking fountain particularly applicable to schools. Its special object is to prevent the risk of contagious diseases which may be acquired by using infected vessels to drink from. It consists of a nozzle fixed at the end of a water supply pipe surrounded by a metal ring, the whole protruding from the centre of a porcelain or metal basin. A slight pressure of the hands upon the ring opens the supply valve and permits the water to bubble up in a small stream from the nozzle. On releasing the ring the valve closes and the water supply is automatically stopped. By this means it is impossible to misuse the fountain; the youngest child can drink from it, and there is no risk of infection being conveyed as the lips of each child simply touch the water only. The price completely equipped is low and I would recommend this appliance as worthy of the consideration of the Committee.

The Winconsin (U.S.A.) State Board of Health has recently promulgated the following rule:—"No person or Corporation in charge of, or in control of, any railroad train or station, or public or private school, or state educational institution, shall furnish any drinking cup for public use;

and no person or Corporation shall permit on railroad trains or in stations, or at public or private schools, or state educational institutions, the common use of the drinking cup."

CLOAK ROOMS.

On wet days I have frequently noticed the damp condition of children's clothing when hung up on the pegs. Some of the children take their clothing and put it on the hot water pipes to dry. It has struck me that if several hat and coat stands were made for each school, the frame work being composed of ordinary hollow iron piping, and this piping connected to the ordinary hot water pipes used for heating the schools, the water in these pipes would automatically circulate through the pipes composing the hat and coat stands and hence the children's clothing could be dried and kept warm without any additional trouble and at no expense beyond the first cost of the frames which need not be in any way elaborate. Another point in connection with cloak rooms is that more space should be given between the hat pegs, that each peg should be numbered, and that each child should be obliged to always hang his or her clothing on the same peg, and failure to do this would be treated in the same manner by the teachers as any other breach of school rules.

An advantage with metal clothing stands is also the ease with which they can be periodically cleansed with soap and water and if thought desirable sprayed with formalin.

SCHEDULE OF MEDICAL INSPECTION.

The Board of Education's Schedule has been closely followed and no variations have been made from it, although in several directions more work has been done than is necessary if the minimum requirements of the Board alone had been kept to.

STAFF.

The actual inspection is carried out by myself as School Medical Officer. In addition, a School Nurse who devotes her whole time to the work of the Education Committee is employed. A Clerk for statistical and clerical purposes devotes half his time.

The present School Nurse is Miss Alice Musto, who in addition to her certificate of three years training, also holds the Health Visitors certificate of the Royal Sanitary Institute and the certificate of the Central Midwives Board. Miss Musto took up her work shortly after the resumption of the Schools following the midsummer holidays, in succession to Miss Williams, resigned.

The work of the School Nurse consists in making all preliminary arrangements for the inspections, being present at each inspection, visiting the homes of all children found to be defective and advising the parents as to the desirability of taking their children to be treated by their own family doctor. The Nurse also pays frequent visits and revisits to the schools in connection with matters arising out of the inspections, in addition to visiting all cases of infectious disease amongst school children notified to me by the teachers. Altogether her time is quite fully occupied and on occasions there is difficulty in performing all the work in the time available.

TREATMENT.

In some cases of minor defects where the parents do not display interest or are unable from various causes to take their children to a doctor, the cases are dealt with at my office by the nurse under my supervision. No wholesale treatment is undertaken but only these special cases are seen and parents are urged to take the necessary steps for the relief of any defects in their children which may be pointed out to them at the Medical Inspections, by taking their children to receive the advice of their own family doctors, who are the practitioners in the town, have been present at the birth of many of the children, know them well, and obviously are the proper persons to undertake this treatment.

In the case of poverty, which I am pleased to say from what I have observed is not existent to any extent in Batley as in some of our large cities, there are always other means such as the Hospitals, or they are dealt with by us at what is really a small School Clinic in a modest way. Cases of Impetigo, Scabies, Sore Heads, Sore Eyes and Eyelids, are

dealt with at the Clinic whenever it is seen that it is hopeless to expect the children to be regularly attended by a doctor or at the hospital. A number of children in a verminous condition have also been cleansed at the Clinic during the year.

THE CO-ORDINATION OF THE WORK OF THE SCHOOL MEDICAL SERVICE WITH THE PUBLIC HEALTH DEPARTMENT.

This is laid down as being most essential by both the Board of Education and the Local Government Board. In Batley this is attained, the Medical Officer of Health being also School Medical Officer.

DISINFECTION AND CLEANLINESS OF SCHOOLS.

The schools in general are kept in a cleanly condition by the caretakers. A daily sweeping of the floors after each afternoon session is already carried out. I would suggest that damp sawdust be employed for this purpose and that some disinfectant fluid be mixed with the sawdust. By this means dust is kept down whereas if dry sweeping alone is resorted to, the dust in great part is simply stirred up to be deposited on the walls, desks, &c. Occasionally during the last year, when measles and whooping cough were present in epidemic form, I have had certain schools sprayed with formalin. This I believe is beneficial, although nothing can take the place of frequent washing with soap and water. Disinfection of Schools in the sense understood by the public is of course impossible, and routine disinfection by chemical methods is useless and a waste of money. I am satisfied that disease in schools is spread by personal infection and not by means of desks, &c. A sufficient amount of pure air, proper ventilation, no overcrowding, cleanliness, and the prompt exclusion of any infected children from school will usually be sufficient to meet all requirements in controlling infectious diseases in schools.

DUST LAYING PREPARATIONS.

During the year two special preparations for this purpose were tried in Park Road and Purlwell Schools. The

result in each case appeared to be good, the dust being successfully kept down. Up to the present, no further action has been taken in the matter.

EXCLUSION OF CHILDREN.

In Batley a system is in operation which if properly carried out makes it almost impossible for infected children to obtain admission to school. As soon as a child is observed to appear unwell, or the child's absence from school is noted, the teacher makes enquiry, and if the child is found to be suffering from illness the teacher fills up a form which is sent to the office of the School Medical Officer. The School Nurse then visits the child's home and reports, unless the child is suffering from one of the diseases under the Infectious Diseases Notification Act, 1889, when this is dealt with directly by the Sanitary Staff in the ordinary way, under the direction of the Medical Officer of Health. If the case is an infectious one the child is excluded from school for a definite period together with any others from the same home if necessary, and notice of this fact is sent to the Education Office and to the Head Teacher of the School. Great assistance has been rendered in connection with the control of infectious diseases in the schools by the co-operation of the teachers with the School Medical Officer in this way. Each head teacher is furnished with a book of printed forms to fill up and printed addressed envelopes in which to forward the forms to the School Medical Officer. During the year the following have been received from the head teachers of the various schools and the cases dealt with by the School Medical Officer's Department.

Warwick Road Boys	...	...	14
Warwick Road Girls	...	...	21
Warwick Road Infants	...	...	87
Staincliffe Infants	...	...	15
Staincliffe Mixed	...	...	1
Brownhill Mixed	...	...	2
Brownhill Infants	...	...	6
Parish Church Mixed	...	...	3
Parish Church Infants	...	...	1
Healey Mixed	...	...	0

Healey Infants	...	...	...	16
Field Lane	...	...	...	43
Purlwell Boys	...	...	...	15
Purlwell Girls	...	...	...	16
Purlwell Infants	...	...	...	40
Park Road Infants		...	...	28
Park Road Boys	...	...	...	1
Park Road Girls	...	...	...	3
St. Mary's Mixed	...	...	...	3
St. Mary's Infants		...	...	20
Carlinghow Boys	...	...	...	0
Carlinghow Girls	...	...	...	12
Carlinghow Infants		...	...	9
Gregory Street Girls		...	...	7
Gregory Street Infants		...	...	28
Mill Lane Mixed	...	...	...	40
Mill Lane Infants	...	...	...	34
Hanging Heaton	...	...	...	7

Before the child can return to school a certificate must be obtained from the doctor in attendance certifying the child's recovery and this certificate is forwarded to the School Medical Officer and is at once accepted, and a notice sent to the Education Office and the Head Teacher certifying that the child or children may now return to school.

The Education Committee have given strict instructions that no child must under any circumstances be re-admitted unless these conditions have been complied with. In the case of Ringworm the certificate of the doctor in attendance must certify that there has been a microscopic examination of the hair. If this is not done, the child must attend at the bacteriological laboratory here and have the hair examined before permission is given to return to school.

The main point being that no child can be re-admitted to school after been exposed to infection, unless the certificate of the School Medical Officer has previously been received by the Head Teacher. In cases where the parent cannot afford to obtain a doctor's certificate the children are examined by myself before returning to school, and if found free

of infection, certificates are forwarded to the Education Offices and the Head Teacher. The time for attendance of children at my office whom it is necessary for me to see is up to 9-15 each morning and from 2 to 3 every Friday afternoon during the school terms. The School Nurse can also be seen daily at 4-15 p.m., and is regularly in attendance for that purpose. The number of examinations of children by myself at the office on these occasions has amounted to no less than 586 during the year. All cases are seen on the first occasion by me and also previous to returning to school. They are not seen by me during the intervening period unless the School Nurse thinks it necessary, but remain in her hands to be dealt with according to my instructions either by seeing that they are placed under the care of their own doctors, if necessary, or otherwise.

EXAMINATION OF CHILDREN.

The children examined were all those whose fifth, seventh, and thirteenth birthdays fell during the year 1910. This gives one more group (age 7) than is actually required by the Board of Education. All new admissions under the age of five were also seen by me.

TEACHERS.

On receipt of notification of an intended visit and inspection, the teachers fill up a form and send it out to the parents of every child to be examined giving the time and place of examination and also inviting them to be present. The teacher also fills up on the child's medical inspection card all particulars relating to age, standard, attendance, &c., which obviously no other person is able to supply. The particulars respecting cleanliness, clothing and footgear, are also supplied by the Head Teachers and they are asked to group the children into three divisions, 1 being good, 2 fair, 3 bad.

The reason of this is that frequently children have special preparations made for the inspection such as an extra wash, clean clothes and the like, and hence a wrong impression may be formed. The teachers seeing the children every day are able to speak as to their average daily con-

dition and a truer record is obtained. I would here pay a tribute to the cordial assistance given to me by the teachers at all times, without their ready co-operation it would be impossible to carry on the work. In the case of all children where defects are found the teacher is informed so that if necessary modification of the curriculum may be employed. In some cases the teachers have been present during the whole of the examination and their presence is always welcomed and in my opinion is desirable.

PARENTS.

Of the total number of children examined no fewer than 65.5 per cent. of parents attended at the examinations as follows :—

Boys	13	50.4%
Girls	13	59.8%
Boys	7	67.9%
Girls	7	69.0%
Infants	5	69.1%

It is particularly gratifying to have such a large number of parents present and I think all the old prejudices which one used to hear are dead, now that there is a fuller understanding of the scope and objects of medical inspection amongst the parents. Most of them displayed the greatest interest, no unpleasantness occurred with any of them, and I am pleased to say that I have frequently been thanked by parents for drawing their attention to defects of the existence of which they were not aware, and thus were able to obtain their own doctor's advice as to the remedy. The School Nurse also has several times informed me of parent's gratitude and has conveyed to me kindly messages from them which have been given to her for me. Her own efforts have been much appreciated. This appreciation amply repays one for any trouble that is taken.

DISTURBANCE OF SCHOOL ARRANGEMENTS.

The examination has been carried out in a class room, emptied for the purpose, in all the schools with the exception of Staincliffe, where owing to want of space the work had to be done in the cloak room, and for similar reasons at

the Parish Church School the inspection was carried out in the Parish Room which adjoins the school, and was kindly placed at our disposal by the Vicar. My policy has always been to interfere with the school work in as small a manner as possible. It is desirable that whenever plans may be considered for the construction of future schools, or improvements to existing schools, due regard should be paid to the provision of a room in which medical inspection can be carried out, and which at other times could be used as a teachers' room, &c. It is further desirable that a room in which parents could wait, and which on other occasions could also be employed in some other manner should be provided.

NUMBER OF VISITS PAID TO SCHOOLS AND DEPARTMENTS.

The number paid to schools in connection with the routine and non-routine inspection of children has amounted to 118 during the year.

RECORDS OF EXAMINATION.

The Card Index System is adopted and all records are kept in separate cabinets in the office of the School Medical Officer, each school having its own separate cabinet.

It is a point worthy of consideration as to whether it would not be an advantage to have the cards kept in their separate cabinets at each school. The cabinets to be locked and the Head Teacher responsible for their safe custody. I am of opinion that this is the more desirable arrangement and is the practice followed in most other districts. At present if a special examination of any child in a school is made, it is necessary that the child's card should be first obtained from this office, and were the cards kept in the schools, time would be saved and such cases could occasionally be seen when the School Medical Officer happens to pass any particular school, whereas under the present arrangement a special journey is necessary on account of the child's card.

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1900

TABLE OF HEIGHTS AND WEIGHTS—BOYS.

Name of School.	AGE LAST BIRTHDAY.								
	5			7			13		
	Number examined.	Average height in inches.	Average weight in pounds.	Number examined,	Average height in inches.	Average weight in pounds.	Number examined.	Average height in inches.	Average weight in pounds.
Park Road	28	38.6	33.8	30	42.6	43.7	33	53.2	69.1
St. Mary's	28	38.8	35.9	26	42.4	44.0	15	52.2	68.6
Healey	19	34.6	31.7	27	44.3	45.1	13	52.9	72.8
Purlwell	33	39.8	36.0	45	44.6	46.4	16	53.7	65.8
Parish Church	27	37.6	35.5	21	44.4	45.4	15	54.6	71.6
Staincliffe	19	39.1	35.1	27	43.5	45.3	15	55.1	69.2
Field Lane	41	39.0	35.0	20	44.3	45.8	—	—	—
Carlinghow	52	38.2	35.4	17	43.9	44.3	31	54.3	72.4
Brownhill	16	39.6	37.4	9	42.8	44.4	11	53.0	68.2
Warwick Road	22	38.8	35.9	19	43.6	44.1	29	50.0	63.8
Mill Lane	23	38.8	35.8	22	43.6	41.8	19	55.5	71.6
Hanging Heaton... ..	8	38.0	33.6	11	43.3	44.1	11	55.6	72.6
Gregory Street	17	36.4	33.5	13	45.3	46.8	—	—	—
Average for the 13 Schools	333	38.4	35.1	287	43.8	44.9	208	53.4	69.4
West Riding	—	40.2	38.6	—	45.2	47.2	—	55.2	74.2
Anthropometical Committee's Standard...	—	41.0	39.9	—	45.9	49.7	—	56.9	82.6
Averages expressed in Metric Measure (Centimetres and Kilogrammes)		cm.	kg.		cm.	kg.		cm.	kg.
(a) for the Thirteen Schools	—	98.0	16.0	—	111.0	20.5	—	136.0	31.5
(b) West Riding... ..	—	102.1	17.5	—	114.8	21.5	—	140.2	33.7
(c) Anthropometical Committee's Standard ...	—	104.0	18.0	—	117.0	22.5	—	144.5	37.5

PLATE 1. THE GREAT WALL OF CHINA



TABLE OF HEIGHTS AND WEIGHTS—GIRLS.

Name of School.	AGE LAST BIRTHDAY.								
	5			7			13		
	Number examined.	Average height in inches.	Average weight in pounds.	Number examined,	Average height in inches.	Average weight in pounds.	Number examined.	Average height in inches.	Average weight in pounds.
Park Road	38	38.0	34.6	28	43.4	44.7	36	53.5	69.7
St. Mary's	35	37.7	33.4	22	45.0	47.1	11	52.0	68.7
Healey	28	34.7	30.0	35	43.5	42.4	13	53.0	67.8
Purlwell	33	38.7	33.8	36	43.3	43.1	24	57.0	75.6
Parish Church	18	39.0	33.4	27	44.1	44.0	13	54.3	68.0
Staincliffe	25	38.0	32.6	25	44.8	43.6	8	53.6	65.7
Field Lane	31	38.7	33.6	22	43.5	42.9	—	—	—
Carlinghow	41	39.2	35.1	31	42.3	39.8	22	53.6	68.5
Brownhill	13	39.5	36.1	11	43.0	42.0	5	55.0	71.8
Warwick Road	34	37.2	32.5	28	44.5	43.2	26	54.7	66.8
Mill Lane	11	37.7	34.3	33	44.3	45.1	10	54.7	70.0
Hanging Heaton... ..	7	38.0	34.8	6	43.6	43.0	7	54.2	71.2
Gregory Street	21	36.0	31.2	13	44.1	42.7	7	54.7	65.1
Average for the 13 Schools	335	37.9	33.4	317	43.8	43.4	182	54.3	69.4
West Riding	—	39.7	36.8	—	44.6	44.8	—	55.9	76.4
Anthropometrical Commit- tee's Standard... ..	—	40.5	39.2	—	44.4	47.5	—	57.7	87.2
Averages expressed in Metric Measure (Centimetres and Kilogrammes)		cm.	kg.		cm.	kg.		cm.	kg.
(a) for the Thirteen Schools	—	96.5	15.2	—	111.0	19.7	—	138.5	31.5
(b) West Riding... ..	—	100.9	16.7	—	113.3	20.4	—	142.0	34.7
(c) Anthropometrical Com- mittee's Standard	—	103.0	17.5	—	113.0	21.5	—	146.0	39.5

Table giving a summary of the defects found in the thirteen schools examined, the children being classified according to age group, and sex.

DEFECTS FOUND.	Age 5. 1st Examination				Age 7. 2nd Examination				Age 13. 4th Examination				Totals 1910.		Totals 1909.		Totals 1908.	
	No. found		ratio %		No. found		ratio %		No. found		ratio %		No.	%	No.	%	No.	%
	B	G	B	G	B	G	B	G	B	G	B	G						
Clothing ...	74	68	22.2	20.3	91	80	31.7	25.2	45	54	21.6	29.6	412	24.7	37	2.9	83	10.4
Nutrition ...	5	6	1.5	1.8	30	41	10.4	12.9	--	4	—	2.2	86	5.1	96	7.4	116	14.6
Verminous Head ...	5	123	1.5	36.7	27	154	9.4	48.5	3	111	1.4	60.9	423	25.4	86	6.7	59	7.4
Cleanliness ...	80	68	24.0	20.3	95	87	33.1	27.4	46	59	22.1	32.4	435	26.1	89	6.9	100	12.6
Adenoids ...	6	13	1.8	3.8	9	14	3.1	4.4	4	12	1.9	6.5	58	3.4	32	2.5	21	2.6
Enlarged Tonsils ...	13	9	3.9	2.7	20	22	6.9	6.9	15	21	7.2	11.5	100	6.0	98	7.6	84	10.5
Enlarged Glands ...	7	8	2.1	2.4	13	16	4.5	5.0	2	5	0.9	2.7	51	3.0	33	2.6	52	6.5
Teeth, all good ...	110	97	33.0	29.0	50	69	17.4	21.8	32	29	15.3	15.9	387	23.3	162	12.6	106	13.3
„ 1-4 defective ...	147	153	44.2	45.6	142	116	49.5	36.6	128	103	61.6	56.6	789	47.5	712	55.2	361	45.5
„ 4-9 „ ...	59	65	17.7	19.4	74	103	25.8	32.5	44	47	21.2	25.8	392	23.6	368	28.6	283	35.6
„ all „ ...	17	20	5.1	6.0	21	29	7.3	9.1	4	3	1.9	1.7	94	5.6	47	3.6	29	3.6
External Eye Diseases ...	11	12	3.3	3.5	14	11	4.8	3.4	5	4	2.4	2.2	57	3.4	58	4.5	47	5.9
Defective Sight ...					40	36	13.9	11.3	32	31	15.3	17.0	139	13.9	139	14.9	132	19.3
Defective Speech ...	3	—	0.9	—	6	1	2.1	0.3	3	—	1.4	—	13	0.7	36	2.8	31	3.9
Ear Disease ...	2	5	0.6	1.4	4	6	1.4	1.8	4	2	1.9	1.1	23	1.3	29	2.2	32	4.0
Defective Hearing ...	3	3	0.9	0.9	6	6	2.1	1.8	6	4	2.8	2.2	28	1.6	56	4.3	48	6.0
Mental Condition, Backward ...	—	—	—	—	3	1	1.0	0.3	—	—	—	—	4	0.2	24	1.9	64	8.1
Defective ...	—	—	—	—	1	—	0.3	—	—	—	—	—	1	0.06	7	0.5	5	0.6
Disease of Heart ...	—	1	—	0.3	1	5	0.3	1.5	4	5	1.9	2.7	16	0.9	35	2.7	21	2.6
„ Lungs ...	12	15	3.6	4.4	11	12	3.8	3.7	4	1	1.9	0.5	55	3.3	26	2.0	17	2.1
„ Nervous System ...	1	1	0.3	0.3	1	2	0.3	0.6	—	—	—	—	5	0.3	5	0.4	2	0.2
Tuberculosis																		
Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	0.08	1	0.1
Osseous ...	—	—	—	—	—	—	—	—	1	—	0.4	—	1	0.06	—	—	4	0.5
Glandular ...	1	—	0.3	—	3	3	1.0	0.9	1	2	0.4	1.1	10	0.6	5	0.4	6	0.7
Rickets ...	35	21	10.5	6.2	34	18	11.8	5.6	13	2	6.2	1.1	123	7.4	76	5.9	50	6.3
Deformities ...	41	23	12.3	6.8	35	22	12.2	6.9	14	5	6.7	2.7	140	8.4	93	7.2	62	7.8
Skin Diseases ...	7	12	2.1	3.5	3	2	1.0	0.6	2	1	0.9	0.5	27	1.6	48	3.7	33	4.1
Infectious or Contagious Disease ...	5	10	1.5	2.9	3	1	1.0	0.3	2	1	0.9	0.5	22	1.3	9	0.7	28	3.5
Other Diseases or Defects	2	—	0.6	—	1	2	0.3	0.6	3	—	1.4	—	8	0.4	13	1.0	15	1.8
Unvaccinated ...	94	70	28.2	20.8	102	103	35.5	32.5	105	96	50.4	52.7	570	34.2	512	39.7	295	37.2
Mother goes out to work	41	50	12.3	14.9	43	52	14.9	16.4	30	27	14.4	14.8	243	14.6	210	16.3	117	14.7
Free from classified Defect, excluding defective Teeth ...	180	129	54.0	38.5	97	91	33.8	28.7	102	34	49.0	18.6	633	38.0	701	54.4	365	46.0
Total number examined	333	335			287	317			208	182			1662		1289		793	

TIME OCCUPIED IN INSPECTION.

All preliminaries such as weighing, measuring, preparation of cards, &c., are done by the teachers before the visit of the Medical Officer. The School Nurse also does a preliminary eye sight test of the children, using Snellen's test cards. The actual average time taken in the examination of each child by the School Medical Officer works out at about five minutes.

DEFECTS FOUND AT ROUTINE EXAMINATIONS.

The number of children found to be suffering from one or more defects amounted to 1,029. Some of these defects were serious, others only minor ailments. A reference to the tables will show them in detail. In every case the parent was advised and the case kept under observation by the School Nurse in order that appropriate treatment for the child might be obtained by the parents.

GENERAL REVIEW OF THE FACTS DISCLOSED BY MEDICAL INSPECTION.

The following table gives a summary of the defects found amongst the scholars examined, the children being classified according to age and sex. As a means of comparison percentages are also given for the years 1908 and 1909, although it is necessary to draw attention to the fact that in these two years a smaller number of children was dealt with and that in the present year three more schools with 870 more scholars furnish the figures on which the percentages are worked.

HEIGHTS AND WEIGHTS.

This table gives the figures in the case of the Batley school children examined. The figures are expressed in pounds and inches and also in kilogrammes and centimetres as required by the Board of Education. A comparison is also made with the figures for the West Riding of Yorkshire for the year 1909, and also with the standard of England and Wales as a whole, as taken from the Report of the Anthropometric Committee.

CLOTHING.

The figures given under this heading are supplied by the teachers, and refer to the state of the child's clothing as it is seen in school all the year round whether in good condition, dirty, ragged, insufficient, or otherwise. As showing the unreliability of forming an opinion from the way in which a child is clothed at the time of inspection I have occasionally remarked to the teachers during an inspection the appearance of a particular child's clothing seems to be superior to the statements on the child's inspection card, and invariably the answer is that the child has his best things on for the occasion and that he is not usually like that. I think these figures really mean less than appears at first sight, and that allowance must be made for a number of children who are untidy and tear their clothing but who have at home a good Sunday suit which can be worn when necessary. On the other hand a number of the children are very much overclothed. Parents should understand that harm may be done by this as well as underclothing a child. Too many coverings to the chest impede respiration, interfere with movements of the arms, cause the child to be always perspiring freely, and make the risk of continually catching cold always present. I have seen as many as twelve garments removed before a boy's chest could be exposed, and at the same time this boy wore short socks and short knickerbockers without lining, the result being that his legs were practically unclothed, being bare in great portion, whilst his chest was so excessively overclothed.

NUTRITION.

	No. examined	No. found defective	% defective
Batley, 1910 ...	1662	86	5.1
West Riding Area, 1909... ..	54343	272	0.50

This term is rather vague. The ill nourished children may be so from disease or want of food, but I do not think the latter applies to any considerable extent in Batley. In

fixing a standard I tried to have in my mind the picture of a healthy child. Some of the ill nourished children were much better than others. The percentage of children returned as ill nourished is lower than the two previous years.

A number of poor children have been supplied with free meals during the year through the generosity of the School Canteen Committee which is composed of members of the Education Committee, who raise funds for this and other purposes by voluntary subscriptions.

VERMINOUS HEADS.

	No. examined	No. found defective	% defective
Batley, 1910 ...	1662	423	25.4
West Riding Area, 1909... ..	54343	11681	21.49

During 1908, 7.4% and during 1909, 6.7% of children were found to be in a verminous condition.

This is a very low percentage in comparison with other parts of the country, and my attention was specially drawn to the difference between this year's figures, viz., 25.4% and the two preceding ones. I found that previously only cases had been put down as verminous where living pediculi had been seen moving in the hair. This method does not give the true facts of the case, for many children whose hair contained numbers of nits—which are the eggs laid by the lice—escaped having their condition recorded, although had they been seen a few days later when the eggs were hatched, living pediculi would have been found. I, therefore, classify a child's hair as verminous when either lice, nits, or both are found on it. It is difficult to prevail on some of the parents to believe that this is a condition which should not exist, for I have not infrequently been told by them that the condition is natural to the children, or that "children are not healthy if their hair does not contain vermin because if the child is weak the vermin will not remain on it as they are unable to obtain the nourishment for their support unless the child is strong," and so forth.

Notwithstanding the apparent absurdity of this latter statement, it is firmly believed in by many parents.

I am glad to say however that this is not the general rule, and I have the greatest sympathy with those parents who do their utmost to keep their children in a cleanly condition. It is unfair that these children should be obliged to sit in school next to children in a verminous condition, for the cleanest child is liable to become verminous if exposed to the infection in this manner. We take the greatest precautions to prevent the admission to school of children suffering from infectious diseases in order to safeguard the health of those children already in school, and I consider that parents are equally entitled to have their children protected from infection of this description. In every case discovered at the routine inspections the parents have the condition pointed out verbally if present, and if not present a notice is sent. A printed card of instructions is also issued giving directions as to how the hair may easily be cleansed. If every parent whose child attends school in this condition would act on these instructions the whole of the Batley schools could quite readily be freed in one week, the condition would be stamped out, and there would not be a single scholar in any school with other than a clean head. We are gradually working towards this desirable end, however, and the School Nurse now visits every school periodically and examines the head of every girl in the school, and where verminous conditions are found she follows the case up. If it were possible, a great advantage would be gained if an order could be issued making it compulsory that every girl with long hair should wear her hair plaited during the time she was in school. I am not sure if this could be done, but if so an end would at once be made of one ever present risk of contagion, as girls sitting close together would not have their hair intermingled, as frequently happens now.

Another desirable innovation would be that an admission day be appointed for every school, and that on this particular day at a specified time, children could enter the school as new scholars and at no other time. The School Nurse would be present and see all new admissions, and any children in

a verminous condition could be refused admission until cleansed, and any other children who were physically afflicted would at once be brought to the knowledge of the School Medical Officer who would be aware of their presence in school without the lapse of time between their admission and the next routine inspection. This regulation could be quite easily worked, would inflict no hardship upon teachers or parents, and the gain to the health of the scholars as a whole would be great.

CLEANLINESS.

As previously explained these figures are supplied by the Head Teachers. The School Nurse follows up all cases of uncleanness where it is desirable, and in one case it was necessary to bring the parent before the School Attendance Committee before improvement was made.

OBSTRUCTED BREATHING.

		No. examined	No. found defective	% defective
Batley, 1910 ...	Adenoids	1662	58	3·4
	Enlarged Tonsils	1662	100	6·0
West Riding Area, 1909... ..	Adenoids	54343	1241	2·28
	Enlarged Tonsils	54343	6419	11·81

This is usually caused by abnormal conditions of the throat and nose owing to enlargement of the tonsils or the growth of adenoid vegetations in the nasal passages. The results, if untreated, are frequently a permanent injury to the child's health and mental faculties such as deafness, dulling of the intellect with consequent failure to obtain benefit from the instruction imparted in the schools, continual colds, bronchitis, and general liability to quickly fall a victim to illness, when if the condition was not present such would not be the case. The expression of a child's face is also permanently altered by the presence of enlarged tonsils or adenoids, or both, the child ceasing to breathe naturally through the nostrils and becoming what is known as a

“mouth-breather.” It is important that surgical treatment should be obtained early in all cases, and parents are always strongly advised to have this done. Looking back on an experience of some 14 years, some ten of which were busily engaged in general practice, I can call to mind many cases in which I can associate the presence of these conditions of the throat and nose with attacks of Scarlet Fever, Diphtheria, Rheumatism, and sometimes Consumption.

ENLARGED GLANDS.

	No. examined	No. found defective	% defective
Batley, 1910 ...	1662	51	3·0
West-Riding Area, 1909... ..	54343	9191	16·91

Enlargement of the glands of the neck, either sub-maxillary or cervical, is generally the result of a verminous condition of the scalp, carious teeth, or skin lesions, the result of dirt. If these conditions remain unabated, the glands affected become chronically enlarged sometimes ultimately breaking down and forming abscesses, and occasionally becoming the seat of tubercular infection. Glands in this condition offer a particularly favourable situation for the growth and developement of the tubercle bacillus and hence it behoves parents to act on the advice always given them and see that the immediate cause of the condition is removed.

TEETH.

In the case of the younger children who were in possession of temporary or “milk teeth” I found it difficult to prevail on the parents to obtain treatment for defects. They are mostly of opinion that the teeth would come out in time and that it would be all right if left to nature. This is a mistake. In some cases no interference is necessary, but when a young child is seen with all its teeth in a state of decay and suppuration taking place around the stumps the condition should be remedied, otherwise permanent injury is likely to result to the child. The discharges from the suppurating teeth are being continually swallowed into the stomach with consequent injury to health.

It is remarkable that such slight importance is attached to these conditions by many parents who otherwise are most solicitous for their children's welfare. The same remarks apply to the older children and it should be realised that the future well being of a child and its health in after years is frequently affected by the child having had the constitution undermined by a septic condition of the mouth during the most tender years of life when everything to promote health and growth should be provided. Apart from this there is also the attendant pains and discomforts due to continual toothache.

The older children should be taught to regularly use a tooth brush morning and night. By this means the teeth are kept in a cleanly condition and less likely to suffer from decay. I have not the least hesitation in asserting that the future men and women of this nation would be all the stronger and healthier if proper attention was paid to the hygiene of their mouths whilst they are yet school children. It has yet to be learnt by many people, who are otherwise well informed that a healthy mouth means a healthy body with consequent escape from many diseases and disorders at present needlessly suffered from. There is no doubt that in many cases of tuberculosis the germ of the disease has obtained its first entry into the system through the inflamed gum around a suppurating tooth.

EYES.

EXTERNAL EYE DISEASES.

	No. examined	No. found defective	% defective
Batley, 1910 ...	1662	57	3·4
West Riding Area, 1909... ..	54343	2306	4·24

These conditions are mostly due to Blepharitis, which is an inflammation of the margins of the eyelids. It is frequently caused in the first place by neglect of the condition

of the eyes in measles. If untreated and no spontaneous cure occurs the result is frequently disfigurement for life owing to chronic inflammation of the lids setting in with the resultant loss of the eyelashes and eversion of the eyelids. This disease is one of those known as a dirt disease and usually is found in children who come from dirty homes, where little care is taken of their cleanliness, and is frequently associated with verminous heads. Many of these cases are dealt with by the School Nurse at the office, but the difficulty is to get the children to attend regularly for this purpose.

Other causes of external eye disease commonly met with are conjunctivitis and inflammatory condition of the Cornea. Squint or Strabismus is also seen often amongst the scholars. This is a condition which should receive appropriate treatment at its earliest recognition, otherwise the squinting eye is certain to become seriously and permanently injured. This is a condition that it is difficult to get parents to realise the importance of as regards the future welfare of the child and I have had many long talks with them on this point with more or less successful results.

DEFECTIVE SIGHT.

	No. examined	No. found defective	% defective
Batley, 1910 ...	1662	139	13.9
West Riding Area, 1909... ..	54343	4144	13.68

Only children in the 7 and 13 age groups had their vision tested, it being impracticable to deal with children aged 5 and under. Hypermetropia, as is usually the case, was found to be much more common than Myopia. Defective eyesight in children is usually an acquired condition although occasionally it may be inherited. In my experience I have found a close connection between defective sight in school children and badly lighted classrooms, but this is not to be taken as an invariable rule, for exceptions occur in which

the sight may be found to be bad in the best lighted schools or vice versa. Generally speaking, however, bad lighting and bad sight run together.

Here again certain difficulties arise in dealing with some parents, which I am pleased to say form a large minority. Some object to their children wearing spectacles on the ground that they are not likely to readily obtain employment. Others do not think the matter is sufficiently important to trouble about. Others again will not make their children wear the spectacles after obtaining them but allow the children to please themselves which usually results in them not being worn. One child had been provided with spectacles free by the generosity of the School Canteen Committee. The School Nurse met this child one day in the street and saw she was not wearing her spectacles. Enquiry brought to light the fact that some three months previously the spectacles were broken and the parents had not troubled further in the matter. A letter to the parents who had treated the Committee's kindness in such a light manner informing them that if the child's spectacles were not immediately repaired and worn, they would be dealt with under the Children's Act, 1908, at once met with response and the child has worn her spectacles regularly since with marked benefit to herself.

A word should here be said about spectacles being purchased without a medical prescription being obtained in the first instance. I have occasionally found children wearing glasses quite unsuited for them and consequently damage being done to their sight by their use, instead of the opposite. It is impossible to properly examine a person's eyes and prescribe spectacles without the use of certain drugs which are dropped into the eyes. These drugs are only used by duly qualified medical men and hence the desirability of having the eyes examined and the prescription written for the spectacles by such a person should readily be grasped. The prescription can then be taken to the optician who will thus be in a position to supply appropriate lenses.

The cost of the spectacles is small if parents are content to have ordinary frames. Gold frames of necessity cost more money, but it should be realised that the lenses are the

essential parts of the spectacles. In several cases of poverty where children's eyes have been medically examined in Bradford Infirmary, or elsewhere, the prescriptions have been brought to this office and spectacles have been obtained by me and paid for by the School Canteen Committee. The cost varies slightly, but it may be taken for all ordinary purposes that unless special lenses are necessary, a child can obtain glasses at an average cost of about 2s. 0d. to 2s. 6d., and the great majority of children needing spectacles require only ordinary lenses. It should, therefore, not be out of the power of parents to purchase glasses in most cases.

A printed card giving advice to the parent as to the procedure to be followed is sent in every case of defective eyesight, and the School Nurse follows it up by visiting the home and advising the parents.

SPEECH.

	No. examined	No. found defective	% defective
Batley, 1910 ...	1662	13	0·7
West Riding Area, 1909... ..	54343	676	1·24

A small percentage of children were found to be defective in their speech but unless due to some special cause, or in the case of the mentally defective, the children usually become normal in this respect as they grow older.

EAR DISEASE AND DEFECTIVE HEARING.

		No. examined	No. found defective	% defective
Batley, 1910 ...	Ear Disease	1662	23	1·3
	Defective Hearing	1662	28	1·6
West Riding Area, 1909... ..	Ear Diseaes	54343	887	1·63
	Defective Hearing	54343	261	0·48

In most cases of disease of the ears with discharge, the cause has been one or other of the infectious diseases. Some other cases arise from abscesses forming in the ear during dentition. The condition is a very dangerous one for there is always the possibility of abscess of the brain following and death resulting. The discharge commonly persists for a very long period and parents get tired of visiting the doctor and syringing the child's ears with appropriate lotions or following out other treatment at the suggestion of their doctor. In these cases we endeavour to get the children up at the office to be dealt with daily by the School Nurse, but it must be confessed that the results are disappointing for the children get tired of coming after a while and cease attending. In all cases however, the danger is pointed out to the parents and they are urged to keep up the treatment. It is also brought to their notice that the treatment must be regular to ensure improvement and that irregular methods are of little use.

MENTAL CONDITION.

The diagnosis of defectives in this class is not always easy. The children referred to here are those who are backward and dull and seem to derive no benefit from instruction, usually remaining in the lower standards. The teacher is to a great extent relied upon to furnish information in these cases, for the child may answer questions comparatively brightly and still be one who makes no progress. Sometimes other causes are at the root of the trouble, and I well remember once seeing a girl of 13, very powerfully built physically, sitting in the infant class. On examination I found the girl's intellect was not at fault, defective sight being her trouble. Proper treatment was prescribed, and six months later the head teacher informed me that this girl instead of being the dunce of the school was likely to be one of the best scholars if the same rate of progression could be maintained, and she could remain long enough in school, as she had already left the infant division and was in Standard 2. The parents expressed thankfulness and it appeared everybody had gradually grown up with the impression the girl's intellect was at fault, when such was

not the case. This girl was not a scholar in a Batley school. Another cause of mental dulness in children, I have proved to my own satisfaction in cases I have been brought into contact with, is the marriage of near relatives. I have in my mind one village where most of the inhabitants are comparatively near relatives and there is in that village an unusual number of backward and mentally defective children.

DISEASES OF THE HEART.

	No. examined	No. found defective	% defective
Batley, 1910 ...	1662	16	0·9
West Riding Area, 1909... ..	54343	1173	2·15

The majority of the children found suffering from heart trouble had a history of a previous attack or attacks of rheumatic fever. Some cases were evidently congenital there being no history of attacks of disease. In all cases the parents were advised to at once consult their own doctor, the teacher was informed of the condition found and instructions given that the child should be exempted in future from drill, attendance at swimming baths, &c., and the School Nurse keeps the child under observation.

TUBERCULOSIS.

		No. examined	No. found defective	% defective
Batley, 1910	Pulmonary	1662	—	—
	Osseous ...	1662	1	0·06
	Glandular	1662	10	0·6
West Riding Area, 1909...	Pulmonary	54343	146	0·26
	Osseous ...	54343	60	0·10
	Glandular	54343	182	0·33

No case of Consumption of the lungs (Phthisis) was found amongst the children examined, but too much importance must not be attached to this fact. It is quite possible for children and adults to be well advanced in the disease before it can readily be diagnosed. Consumption affecting the lungs is not commonly found in school children,

it being rare. In the case of those children found suffering from Tuberculosis in the Batley Schools it was found to be confined to either the bones or glands.

When the disease affects the lungs in young children the tendency is to spontaneous cure, as may be easily verified by looking up the records of post mortem examinations at the Hospitals. Many of the bodies presenting evidence of old tubercular lesions in the lungs. I well remember a few years ago performing a post mortem examination on the body of a woman, aged 40, who weighed between 13 and 14 stones, and who was noted in the district for her very strong and healthy appearance and whose lungs presented evidence of fairly advanced Phthisis which years previously had spontaneously become cured. Tuberculous Thoracic Glands are probably present in some 20 per cent. of school children and are a cause of malnutrition and other conditions which are benefited by attendance at an open air school, a few words on which are said later.

DISEASES OF THE LUNGS.

	No. examined	No. found defective	% defective
Batley, 1910 ...	1662	55	3·3
West Riding Area, 1909... ..	54343	1993	3·66

These are mostly Bronchitis, Bronchial Catarrh, or some similar ailment.

DISEASES OF THE NERVOUS SYSTEM.

	No. examined	No. found defective	% defective
Batley, 1910 ...	1662	5	0·3
West Riding Area, 1909... ..	54343	241	0·44

Chorea, Epilepsy, and Infantile Paralysis were responsible for the five cases found.

RICKETS AND DEFORMITIES.

	No. examined	No. found defective	% defective
Batley, 1910 ...	1662	263	15·8
West Riding Area, 1909... ..	54343	3186	5·85

Children are not usually seen in the elementary schools suffering from the deformities following an attack in earlier life. One sad feature about all these cases is that the disease should not occur, it being preventable. The main causes are improper feeding of infants and improper methods of feeding. Unfortunately this disease is not at all uncommon in Batley but it is hoped that in time the efforts of our School Nurses and Health Visitors will result in the disease becoming most uncommon.

The teaching of mothercraft in our schools and the carrying out by the present mothers of the simple advice given to them by the Nurses of the Sanitary Department in this Borough will result in a great diminution in the future of the number of deformed limbs at present to be seen not only in Batley but in practically all our large centres of industry.

INFECTIOUS SKIN DISEASES.

	No. examined	No. found defective	% defective
Batley, 1910 ...	1662	22	1·3
West Riding Area, 1909	54343	2006	3·69

Most of those met with were cases of Ringworm, Scabies, or Impetigo. Exclusion from School and appropriate methods of procedure were pointed out to the parents. In two cases of Scabies it was necessary to have the children removed to the disinfecting station and cleansed by the Nurse.

In appropriate cases the following printed leaflets are
given to the parents.

This Handbill should be kept for Reference.

BATLEY EDUCATION COMMITTEE.

SCABS, OR ITCH.

The following treatment is usually successful in itch :—

Wash with hot water in which is some disinfectant, and use carbolic soap. Rub body lightly with flowers of sulphur, half a teaspoonful is enough. Repeat every other night and put on clean underlinen every other day. Sprinkle the sheets also with a little sulphur. Continue treatment for ten days.

All the inmates of the house who are suffering from this complaint must be treated at the same time.

Should the disease not be cured in a fortnight medical advice must be obtained. Suitable baths can be arranged when required. Application for these should be made to the School Medical Officer.

G. H. PEARCE,

School Medical Officer.

PUBLIC HEALTH DEPARTMENT,
BATLEY.

This Handbill should be kept for Reference.

BATLEY EDUCATION COMMITTEE.

INFECTIOUS SCABS AND SORES.

(Impetigo Contagiosa)

If the scabs are on the head, cover them with strips of rag soaked in olive oil until they can be removed. If the scabs are on the face, remove them by bathing with hot water.

Then apply dilute white precipitate ointment (ten grains to the ounce), which can be procured from any chemist.

It is of no use applying the ointment until the scabs have been removed.

Any case of impetigo should be cured in a week. If it will not yield to above treatment it is imperative that medical advice should be obtained, as there may be some more serious affection.

G. H. PEARCE,

School Medical Officer.

PUBLIC HEALTH DEPARTMENT,
BATLEY.

INFECTIOUS DISEASES.

No case of notifiable infectious disease was discovered during the routine examinations in the Schools, although in one scholar it was doubtful whether the child had not suffered from Scarlet Fever. Several cases of Measles, Whooping Cough, and Chicken Pox, were detected. During about nine months of the year Measles and Whooping Cough were epidemic. Some cases of Diphtheria occurred in connection with scholars attending Park Road, Parish Church, Purlwell, Warwick Road, St. Mary's, Staincliffe Church, and Carlinghow Schools. Some cases also were notified by practitioners in connection with scholars at the Boy's Grammar School, and also the Girl's Grammar School.

The usual methods were adopted in the case of Diphtheria, resulting in the disease being kept in check, and in a short time disappearing from each school as it was attacked.

No school was closed on account of Diphtheria, this being unnecessary where the usual methods of controlling an outbreak are adopted.

This matter is dealt with more fully in the Health Report previously.

This table gives the numbers and percentages of those examined who had suffered from the diseases indicated, classified according to sex and the age at which they were attacked.

Ages.	MEASLES.				SCARLET FEVER				DIPHTHERIA.				WHOOPIING COUGH.				CHICKEN POX.				MUMPS.			
	No. Involved.		% of those examined who have had the disease.		No. Involved.		% of those examined who have had the disease.		No. Involved.		% of those examined who have had the disease.		No. Involved.		% of those examined who have had the disease.		No. Involved.		% of those examined who have had the disease.		No. Involved.		% of those examined who have had the disease.	
	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G
0—1	18	17	2.1	2.0	2	4	0.2	0.4	—	—	—	—	12	17	1.4	2.0	6	8	0.7	0.9	1	—	0.1	—
1—2	55	72	6.6	8.6	6	4	0.7	0.4	—	1	—	0.1	25	30	3.0	3.6	19	20	2.2	2.4	3	2	0.3	0.2
2—3	103	115	12.4	13.7	9	4	1.0	0.4	—	—	—	—	50	52	6.0	6.2	25	27	3.0	3.2	8	1	0.9	0.1
3—4	132	124	15.9	14.8	3	7	0.3	0.8	4	2	0.4	0.2	49	52	5.9	6.2	45	41	5.4	4.9	8	3	0.9	0.3
4—5	104	93	12.5	11.1	9	4	1.0	0.4	—	3	—	0.3	36	46	4.3	5.5	35	42	4.2	5.0	15	3	1.8	0.3
5—6	70	73	8.4	8.7	4	5	0.4	0.6	4	2	0.4	0.2	16	28	1.9	3.3	21	33	2.5	3.9	7	4	0.8	0.4
6—7	28	25	3.3	3.0	11	7	1.3	0.8	2	2	0.2	0.2	11	5	1.3	0.6	11	11	1.3	1.3	8	12	0.9	1.4
7—8	18	21	2.1	2.5	8	8	0.9	0.9	2	2	0.2	0.2	11	6	1.3	0.7	2	5	0.2	0.6	9	8	1.0	0.9
8—9	2	5	0.2	0.6	3	5	0.3	0.6	—	2	—	0.2	1	1	0.1	0.1	—	2	—	0.2	3	5	0.3	0.6
9—10	2	2	0.2	0.2	2	1	0.2	0.1	—	1	—	0.1	—	3	—	0.3	3	—	0.3	—	1	2	0.1	0.2
10—11	1	—	0.1	—	—	—	—	—	—	—	—	—	1	—	0.1	—	—	1	—	0.1	1	6	0.1	0.7
11—12	1	—	0.1	—	2	1	0.2	0.1	—	2	—	0.2	1	2	0.1	0.2	—	—	—	—	2	2	0.2	0.2
12—13	1	3	0.1	0.3	1	2	0.1	0.2	—	1	—	0.1	—	—	—	—	—	—	—	—	3	4	0.3	0.4
Totals ...	535	550	64.6	65.9	60	52	7.2	6.2	12	18	1.4	2.1	213	242	25.7	29.0	167	190	20.1	22.7	69	52	8.3	6.2
Totals and Percentages of all Examined (1662).	1085		65.2		112		6.7		30		1.8		455		27.3		357		21.4		121		7.2	

VACCINATION.

	No. examined	No. found u vaccinated	% unvaccinated
Batley, 1910 ...	1662	570	34·2
West Riding Area, 1909... ..	54343	8673	15·90

Of the scholars examined more than 34% were found to be unvaccinated. The matter is referred to previously in the pages of the Health Report.

MOTHERS AT WORK.

	No. examined	No. of Mothers who went to work	% of Mothers working
Batley, 1910 ...	1662	243	14·6
West Riding Area, 1909... ..	54343	2627	4·83

The above is not a correct figure for it has been found that some mothers have not answered the questions correctly, others gave no answer, but it gives some idea of the relative number of mothers who stay at home.

HOME CIRCUMSTANCES.

The Board of Education ask for information respecting the relationship between home circumstances and social and industrial conditions to the health and physical condition of the children inspected, so far as facts bearing on this point have come under notice.

The main facts relating to these matters are gathered from a perusal of the papers of the Annual Report on the Health of the Borough in the earlier part of this volume. It is sufficient to say here that Batley is an industrial town, most of the inhabitants being engaged in the textile trade, and a number working in the Coal Mines. Female labour is employed in the factories to a great extent, and it is certainly a fact, readily seen in the schools, that those children whose

mothers do not go out to work are the best cared for. I give below a table dealing with the accommodation, so far as number of rooms and number of occupants is concerned, in the homes of the various children coming under routine examination

ACCOMMODATION IN THE HOMES.

No. of rooms in house.	No. of persons per Tenement.												Total
	1	2	3	4	5	6	7	8	9	10	11	12 and upwards	
1		1	2	2	1				1				7
2		10	57	117	99	81	39	13	12				428
3		1	60	115	150	110	85	37	20	5	4		587
4		3	39	64	69	53	41	27	13	14	6	2	332
5 and upwards		1	14	39	38	51	46	31	17	13	2	3	255

Those cases where gross overcrowding existed have been dealt with by the Sanitary Department.

RINGWORM.

During the year a number of children were kept out of school on this account. A practitioner in the town who possessed an X-Ray apparatus generously treated free of charge several of the children. Terms could not successfully be arranged between this gentleman and the Education Committee in order that he might treat all the cases of Ringworm in the schools whose parents were agreeable. The Hospital authorities were approached by the Committee with the same result.

Fortunately many of the children have now recovered and are back at school.

In my opinion it would be a source of profit to the Education Committee if treatment by X-Rays for Ringworm could be carried out. It is no uncommon thing for children to be away from school with this disease for 12 months, if untreated, whereas if treated by X-Rays they should be back in school, free from infection, in about six weeks. The cost incurred by paying a fee to obtain a cure would be more than saved when the amount of money lost in grant is considered, for a child who is away from school for a prolonged period means an appreciable sum to the detriment of the ratepayer's pockets apart from the loss to the child's education by enforced absence.

A method of avoiding loss of grant in Ringworm cases would be to isolate all cases of the infection in a class or department at one particular school and compel all children in the town to attend there. The affected children should enter school after and leave before the other children and use the playground at a different time. A difficulty would be caused in a town the size of Batley by the difference in age, but in large towns where there would be enough children of the same ages to make a class the children would then be able to attend school and the grant would not be lost.

It is not generally realised what a close connection there should be between the School Medical Officer and his staff, and the Attendance Officers.

Theoretically no child should be absent from school unless illness is the cause, and the ideal system to aim at is that the School Medical Officer should be in a position to say why every child is absent from school. At the close of the year only 44 children remained in the books of the School Medical Officer's Dept. as officially excluded from school under the School Medical Officer's certificate owing to illness.

CLOSURE OF SCHOOLS.

During the year the following schools were closed:—
Warwick Road Infants. March 8th to April 4th. On account of Measles.

Mill Lane School, Infants and Mixed Departments. May 23rd to June 6th. On account of Measles.

Purlwell Infants. May 25th to June 8th. On account of Measles.

Gregory Street Infants. September 27th to October 17th. On account of Measles and Whooping Cough.

As previously stated the Medical Officer of Health is also School Medical Officer, and in the case of school closure that Official acts in his capacity as School Medical Officer.

BLIND, DEAF, MENTALLY AND PHYSICALLY DEFECTIVE, AND EPILEPTIC CHILDREN.

If any cases of this nature are met with they are reported to the Education Committee to be dealt with. During the past year the Committee have taken action in one case, the child being sent to an appropriate establishment. Several other cases are at present under the consideration of the Committee.

In the case of mentally and morally defectives it is to be hoped that before many years elapse, national provision will be made for the permanent care of these unfortunate human beings by segregating them in special establishments and thereby whilst caring for them they are prevented from propagating similar defective members of the race.

HYGIENE AND TEMPERANCE.

The Board of Education require the School Medical Officer to give definite information respecting,

(1) The methods and results of instruction in personal hygiene and temperance in the Public Elementary Schools in the area.

In Batley the Board's syllabus of Lessons on Temperance for scholars attending Public Elementary Schools is followed.

In my opinion the solution of this question will best be attained through instructing the young in our schools, more particularly the girls. I have had a number of years experience, when engaged in practice, of the working classes and their homes, and I have often noticed the lamentable ignorance of wives and mothers respecting the cooking of

ordinary meals and methods of preparing the same. I have many times seen a man come home from his work to an untidy house, a wash tub in the centre of the kitchen floor, although the house contained sufficient accommodation to render this unnecessary, and either no meal got ready or some very unappetising food awaiting the husband. This man knows that there is no great comfort for him in his home and hence goes out. He sits probably in a warm comfortable room amongst others of his fellow workmen, and in some cases may so far forget himself as to overstep the bounds of sobriety. I am stating what I know to be a fact and have seen it frequently. There is no doubt if this man had a comfortable home, and a wife who could cook and serve an appetising meal, he would not have the desire to go out of his home after his days work but would be more likely to remain in it, to the advantage of himself and his family.

The wives and mothers of the next generation are the girls in our elementary schools to-day and if these girls are taught housewifery and carry out in after years the instructions they have received at school, I am certain it will be a tremendous benefit to the nation in future.

PHYSICAL EXERCISES.

(2) The methods and result of physical or breathing exercises in the schools.

These exercises are carried out regularly with benefit to the pupils. Any children who are physically incapacitated are excluded from participating by the teachers on the representation of the School Medical Officer.

OPEN AIR SCHOOLS.

(3) Arrangements for open air schools, school camps, &c., under Article 44, (g) of the code of 1908.

Up to the present this matter has not been dealt with by the Education Committee, although I believe the members are not insensible to the very great advantages to be gained by scholars in so far as their health is concerned wherever an open air school is available.

It is not essential that only tuberculous children should be sent to open air schools. The system has passed the experimental stage and has now become firmly established.

There are many children in schools throughout the country who are in a debilitated condition. An attendance of this class of children at open air schools, where such exist, for a period of between three and six months has been followed by results which are nothing short of astounding.

Children suffering from malnutrition due to poverty and want of proper food, want of sleep, early tubercular disease, a number of decayed teeth causing septic conditions of the mouth, children who have recently been in hospital, &c., are all most suitable cases for open air schools and there are a number of such children in the Batley Schools.

The first open air school was established at Charlottenberg in 1904, the Germans for some time having been working in this direction. The first English open air school was established by the London County Council in 1906. Its success was followed by the opening of three more by the London County Council in 1908, and since then a number of other schools of the same type have been opened throughout the country. The most prominent in our neighbourhood are those at Bradford and Sheffield. There are also open air schools at Halifax, Barnsley, and Darlington, amongst an increasing number of other places.

I have had the advantage of visiting the Bradford open air schools at a recent Provincial Meeting of the Royal Sanitary Institute. I was much impressed by what I saw and also by the certainty of much benefit being derived by any children who attend the school.

I have abstracted the following paragraphs from the Report of the School Medical Officer to the Bradford Education Committee for 1909.

" The results of the school treatment on the physical and moral condition of the scholars have been most satisfactory. The children when presented for admission form a most sorrowful spectacle. Physically, they are for the most

part pale, thin, undersized, unkempt and neglected specimens of humanity. Mentally, they are unnaturally subdued, quiet, and often sullen. On account of poverty, neglect, heredity, or certain chronic pathological conditions, they are totally unfit for the ordinary strain of school life, and yet, in only a few weeks time, these same children will become bright and attentive, clean and happy; many of them will soon look rosy and healthy; some of them quite robust and noisy. The remedy is a wonderfully simple one, and exceedingly cheap—nothing more than pure fresh air and plain good food."

"I have said that the children are weighed every week; a record of their weight is kept. For the first few weeks the gain in weight is rapid, and then, though not so rapid, there is a steady gain. The average gain per child at the end of the first month was 1 kilo (2.2 lbs.), about as much as these children would under ordinary circumstances have gained in six months. After two months' treatment the average gain in weight per week was 0.15 kilos (5 ozs.), which is more than twice as much as under ordinary conditions. All the scholars attending our open air school do not gain weight; some are well nourished, when admitted. For example, convalescents after St. Vitus Dance, certain heart cases, and rickety cases with a superfluity of unhealthy fat. Nevertheless such children are very suitable cases for open air treatment, and improve greatly thereby."

"There is a marked beneficial effect upon the hæmoglobin in the blood, which plays a very prominent part in carrying oxygen from the air in the lungs to the tissues of the body."

"The average percentage of hæmoglobin present on admission was about 65. The average percentage of hæmoglobin on leaving was about 78, showing an average increase per cent. of 13."

"On admission and on leaving the school, chest measurements are taken. It is by no means an easy matter to obtain accurate measurements of the chest during full inspiration and full expiration, especially in the younger children, but an attempt is made to do so in every case."

“ The average increase during full inspiration was rather more than one inch ; this represents an appreciable improvement in the lung capacity, and it is what one would naturally expect in children who spend the whole day breathing nothing but pure air.”

“ There can be no doubts of the benefits derived from open air school treatment of children such as I have indicated and the presence in a child of any of the conditions mentioned above, should qualify that child, irrespective of social position, for an attendance at an open air school.”

“ The duration of attendance at the school depends entirely on the individual physical condition of each case. The majority of children should remain for at least three months, some six months, and some will never be fit to attend any but an open air school.”

“ The results obtained at the Thackley Open Air School have fully justified its existence, and the school has amply fulfilled the objects for which it was established, namely:—

- (1) To benefit physically those children found to be incapable of profiting fully by the instruction given in ordinary schools owing to delicate health.
- (2) To prevent any educational loss while the children were undergoing special treatment.”

Dr. Williams, School Medical Officer, Sheffield, states : “ Throughout their stay of four months the Sheffield children gained on an average 5.9 pounds, whilst it was calculated that children attending the ordinary schools gained 2.4 pounds.”

“ INCREASED CHEST MEASUREMENTS. Increase was found to have taken place in nearly all the children. This represents increased breathing power, although a slight proportion of the increase is due to additional fat in the chest wall. (23 children out of 46 increased more than one inch on full inspiration.)”

“GENERAL APPEARANCE OF THE CHILDREN. The improvement under this heading was most appreciable, and has been noted in the reports on all the schools of this type. Dull and listless on admission, the children soon became bright and lively. This was noted, not only in their bodily movements, but also in their mental state, which quickly responded to the good food and open-air conditions.”

“MENTAL. The great majority of the children showed marked increase in mental alertness, and although the interruption in their work in the various standards was considerable, most of them were able to take their place again in the ordinary school with little difficulty, whilst their powers of observation were much increased.”

“MORAL. The improvement of the children in behaviour has been noted as a striking feature of the open air school. The substitution of the “family” life at school for the stress of street life is marked by excellent results. Many who are sullen and morose on admission become bright, willing, obedient, and anxious to work for the good of the small community.”

“HOW FAR ARE THE RESULTS PERMANENT? This is a matter of great importance, and the following may be of interest:—In the Sheffield school at the end of October the results were classified as follows: Cured, 17; Improved, 32; Stationary, 1. On examining the children four months later, the condition of the children as regards weight was as follows: Gained, 18; Lost, 23; same weight as in October, 2. Generally speaking, the results were expressed as good, 18; fair, 0; poor, 0.”

This result may, as far as it goes, be considered very satisfactory, for most of the children come from very poor homes.”

GENERAL CONCLUSION.

“The rapidity with which this movement in Preventive Medicine is spreading and the excellent results which have been obtained, point to the fact that the open air school will influence elementary education as a whole to no inconsiderable extent.”

“ The movement will tend to check the erection of expensive buildings on costly sites in the central areas of cities where a train or electric car service is available to take children out to the woods and fields of the suburbs.”

“ School buildings will cost less, ventilation will become more efficient as teachers and parents realise the value of fresh air and the necessity of the open window, while the influence of the open air school will be an important factor in counteracting debilitating conditions during childhood and thus improve the physical efficiency of the nation.”

An extract from an article written by Mr. R. G. Kirkby gives the position from the Architect's point of view.

“ The remarkable physical improvement, which is noticeable in children attending open air schools, suggests the consideration that some of the principles governing the planning of open air schools might, with advantage, be extended to other school buildings, and it would appear as if these principles are destined to have a very important influence on the design of schools generally.”

“ In an elementary school at Thornbury, which is being erected for the Bradford Education Committee, the principles of an open air school are adopted. All the class rooms open on to a verandah facing south, the lower portion of the walls being so constructed that by means of folding doors practically the whole of one side of the class rooms may be thrown open. The folding doors are fitted with special folding hoppers, to close when the doors are open, and to regulate the flow of air into the class room, when the doors are closed during inclement weather. These principles are also being adopted in a new cripple and deaf school.”

“ In view of the overwhelming evidence that exists to-day in favour of a more rational type of school planning, it is surprising that the authorities are still permitting school buildings to be erected on the old central hall plan. It seems as if on the one hand we are breaking down the general physique of the race, and on the other hand having to erect open air schools to build it up again.”

“During the last ten years many millions of pounds have been spent in the erection of school buildings in England, the bulk of which have many serious drawbacks from the standpoint of hygiene. By their convincing success the establishment of open air schools will help to break this ignorance down, and to justify the wider adoption of the principles which they connote.”

“The additional cost of maintaining open air schools may militate against their expansion. Against this, however, it should be remembered that many children who ultimately find their way to permanent schools for the physically defective, might have been saved this by early treatment in the open air school, and so the greater burden and expense to the community would have been obviated. The principle of an open air school might, however, be adopted in the planning of an ordinary elementary school at little or no extra expense.”

If in the future a scheme for an open air school were adopted in Batley it would undoubtedly be of the greatest benefit to the health of a number of school children. A sojourn at an open air school for some months occurring at a critical period of their lives would be the means in many cases of lasting benefit to them throughout the rest of their lives. Speaking from my position as School Medical Officer I am convinced that it is desirable that such an institution should be established without delay, but on the other hand I am well aware that difficulties may arise so many circumstances having to be taken into consideration. When the time is ripe for dealing with the subject it should not be forgotten that the White Lee grounds, which are the property of the Corporation, might easily be utilised in this matter.

COST OF MEDICAL INSPECTION.

During 1910, the sum of £309 3s. 3d. has been expended in carrying out this work. It is made up as follows:

	£	s.	d.
Salaries 	259	0	3
Stationery, cost of Printing Annual Report, and Postages 	26	2	6

Drugs and Apparatus ...	...	...	3	12	11
Advertising and allowance for Nurse's Uniform			8	1	10
Rates, Gas, Electricity, Water Rents, and					
Laundry	...	...	7	15	5
Sundries	...	...	4	10	4
			<hr/>		
			£309	3	3

It is very gratifying to think that such a large amount of work has been done with undoubted benefit to the scholars at such a small cost. When every item, including salaries, is taken into account, it only amounts to a fraction more than a halfpenny rate.

I am, Ladies and Gentlemen,

Your obedient Servant,

G. H. PEARCE.

SCHOOL NURSE'S REPORT.

TO THE SCHOOL MEDICAL OFFICER.

SIR,

I beg to present to you a Report on work done by me since taking up my duties.

I commenced work as School Nurse to the Batley Educational Committee on September 21st, and from that date till the 31st of December, the following is a brief summary of the work undertaken.

Helped the Doctor with the Medical Inspection of all children in the 7 year age-group, in each of the thirteen schools.

Followed up 230 cases which needed medical attention.

Followed up 100 cases of Verminous or Nitty Heads.

About one week's notice is given to the teachers of the proposed medical inspection, and during the week they do their best to get the necessary particulars filled correctly on the cards.

With a Snellen's test type card I test the childrens eyesight and record it on the card. If I notice any defect or peculiarity about the child I make a note of it and call the Doctor's attention to it on the morning of the inspection.

On the inspection morning many of the children wear their best clothes, have a rather smarter appearance than usual owing to an extra usage of soap and water, brush and comb. Very few of the children show signs of nervousness. The majority of them look on the inspection as a treat, proudly repeating any few words of approbation the Doctor may have used to them. The children and their parents wait a few at a time in a spare room or cloak room, and I get the mothers just to loosen the fastenings of their clothes so as to save time. Then when they arrive at the Doctor's room (where a fire is always provided) the clothes are readily just slipped off the shoulders. After inspection the clothes are replaced but fastened up in the waiting room. I find this method saves a lot of time and renders each inspection quite private.

The results of following up 230 cases are as follows:—

Medical Treatment in 64 cases.

Glasses obtained, 10 pairs.

Tonsils removed in 6 cases.

Teeth extracted in 22 cases.

Medical attention for heart disease 7.

Medical Treatment for Tubercular Glands 5.

Medical Treatment for coughs and colds 14.

I have followed up 100 cases of Verminous Heads, instructing the mothers how to cleanse the heads, both verbally, by demonstration, and by leaving with them printed instructions, and where the girls were big enough advising and instructing them personally.

If the mother cannot or will not cleanse the head, I ask for the child to come to the clinic where the hair is speedily cleansed. In the school clinic 41 cases have been treated 258 times.

The cases consist of six Eye cases, 12 Impetigo cases, one Otorrhœa case, and 22 cases of Verminous Heads. They consist mostly of children who come to see the Doctor in the morning. The class of children treated are of the poorest, and if they are not treated at the clinic there is very little hope of them getting any treatment at all.

Between 9 a.m. and 9-15 a.m. many children are brought to the office for the doctor to decide whether they are to go to school or not. Most of them are found to be suffering from minor ailments. Some are asked to come to the office at 4-15 p.m. for treatment, in other cases the parents are told to seek advice from their own doctor, and others are instructed what to do and how to do it. These cases I follow up, and if necessary, treat. Most of the mothers make an attempt to carry out the Doctor's instructions with more or less success. On one occasion a starch poultice had been recommended to remove scabs. The mother said the poultice had not done much good so she rubbed in starch powder.

Last but not least is the following up of children with infectious diseases. Most of the mothers realise the necessity for isolation and disinfection. There is much scope here for doing good work by pointing out certain conditions as being the probable cause of the illness. In cases of Chicken Pox, Whooping Cough, and Measles, it is not unusual to find no doctor in attendance.

I am, Sir,

Obediently yours,

ALICE MUSTO,

Cert. Roy. San. Inst., and C.M.B.

APPENDIX.

The following Tables gives a CLASSIFICATION of the DEFECTS found in the individual schools.

They show for each school the total number of children examined at the *routine* inspection and the number and percentage of those examined found to be suffering from each class of defect.

The figures for boys and girls are given separately.

BROWNHILL C.E. SCHOOL.

DEFECTS FOUND.	Age 5. 1st Examination				Age 7. 2nd Examination				Age 13. 4th Examination				Totals	
	No. found		ratio %		No. found		ratio %		No. found		ratio %		No.	%
	B	G	B	G	B	G	B	G	B	G	B	G		
Clothing ...	8	5	50.0	38.4	4	7	44.4	63.6	7	2	63.6	40.0	33	50.7
Nutrition ...	—	—	—	—	1	6	11.1	54.5	—	—	—	—	7	10.7
Verminous Head ...	—	6	—	46.1	6	8	66.6	72.7	—	4	—	80.0	24	36.9
Cleanliness ...	9	5	56.2	38.4	6	8	66.6	72.7	8	2	72.7	40.0	38	58.4
Adenoids ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enlarged Tonsils ...	—	—	—	—	—	1	—	9.0	1	—	9.0	—	2	3.0
Enlarged Glands ...	—	—	—	—	2	2	22.2	18.1	—	—	—	—	4	6.1
Teeth, all good ...	5	5	31.3	38.5	2	3	22.2	27.3	1	—	9.1	—	16	24.6
„ 1-4 defective ...	2	6	12.5	46.1	3	1	33.4	9.1	3	2	27.3	40.0	17	26.2
„ 4-9 „ ...	9	2	56.2	15.4	2	5	22.2	45.4	7	3	63.6	60.0	28	43.1
„ all „ ...	—	—	—	—	2	2	22.2	18.2	—	—	—	—	4	6.1
External Eye Diseases ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Defective Sight ...	—	—	—	—	—	—	—	—	—	1	—	20.0	1	2.7
Defective Speech ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ear Disease ...	—	—	—	—	—	1	—	9.0	—	—	—	—	1	1.5
Defective Hearing ...	—	—	—	—	—	1	—	9.0	1	—	9.0	—	2	3.0
Mental Condition, Backward ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Defective ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Disease of Heart ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
„ Lungs ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
„ Nervous System ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Osseous ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Glandular ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rickets ...	1	1	6.2	7.6	—	—	—	—	2	—	18.1	—	4	6.1
Deformities ...	1	1	6.2	7.6	—	—	—	—	2	—	18.1	—	4	6.1
Skin Diseases ...	—	—	—	—	1	—	11.1	—	1	—	9.0	—	2	3.0
Infectious or Contagious Disease ...	—	—	—	—	1	—	11.1	—	1	—	9.0	—	2	3.0
Other Diseases or Defects	—	—	—	—	—	—	—	—	1	—	9.0	—	1	1.5
Unvaccinated ...	2	1	12.5	7.6	7	4	77.7	36.3	6	3	54.5	60.0	23	35.3
Mother goes out to work	—	—	—	—	—	2	—	18.1	—	—	—	—	2	3.0
Free from classified Defect, excluding defective Teeth ...	7	6	43.7	46.1	1	1	11.1	9.0	3	1	27.2	20.0	19	29.2
Total number examined	16	13			9	11			11	5			65	

TABLE NO. 11

1911

1912

1913

1914

1915

1916

Total number examined

WARWICK ROAD COUNCIL SCHOOL.

DEFECTS FOUND.	Age 5. 1st Examination				Age 7. 2nd Examination				Age 13. 4th Examination				Totals	
	No. found		ratio %		No. found		ratio %		No. found		ratio %		No.	%
	B	G	B	G	B	G	B	G	B	G	B	G		
Clothing ...	5	4	22.7	11.7	3	7	15.7	25.0	1	9	3.4	34.6	29	18.3
Nutrition ...	—	—	—	—	1	5	5.2	17.8	—	—	—	—	6	3.7
Verminous Head ...	—	10	—	29.4	6	17	31.5	60.7	1	12	3.4	46.1	46	29.1
Cleanliness ...	6	3	27.2	8.8	4	6	21.0	21.4	1	10	3.4	38.4	30	18.9
Adenoids ...	2	—	9.0	—	1	3	5.2	10.7	1	4	3.4	15.3	11	6.9
Enlarged Tonsils ...	3	1	13.6	2.9	1	3	5.2	10.7	4	2	13.7	7.6	14	8.8
Enlarged Glands ...	—	1	—	2.9	1	1	5.2	3.5	—	—	—	—	3	1.8
Teeth, all good ...	12	9	54.6	26.5	4	5	21.1	17.9	3	7	10.3	26.9	40	25.3
„ 1-4 defective ...	6	18	27.3	52.9	10	8	52.6	28.6	15	12	51.7	46.2	69	43.7
„ 4-9 „ ...	3	6	13.6	17.7	4	10	21.0	35.7	10	7	34.5	26.9	40	25.3
„ all „ ...	1	1	4.5	2.9	1	5	5.3	17.8	1	—	3.5	—	9	5.7
External Eye Diseases ...	2	1	9.0	2.9	2	—	10.5	—	2	3	6.8	11.5	10	6.3
Defective Sight ...	—	—	—	—	1	2	5.2	7.1	4	9	13.7	34.6	16	15.6
Defective Speech ...	—	—	—	—	1	—	5.2	—	—	—	—	—	1	0.6
Ear Disease ...	—	—	—	—	1	—	5.2	—	—	1	—	3.8	2	1.2
Defective Hearing ...	—	1	—	2.9	—	1	—	3.5	2	—	6.8	—	4	2.5
Mental Condition, Backward ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Defective ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Disease of Heart ...	—	—	—	—	—	2	—	7.1	1	—	3.4	—	3	1.8
„ Lungs ...	2	3	9.0	8.8	—	1	—	3.5	—	—	—	—	6	3.7
„ Nervous System ...	—	1	—	2.9	1	—	5.2	—	—	—	—	—	2	1.2
Tuberculosis, Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Osseous ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Glandular ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rickets ...	3	2	13.6	5.8	—	1	—	3.5	2	—	6.8	—	8	5.0
Deformities ...	3	3	13.6	8.8	1	1	5.2	3.5	3	1	10.3	3.8	12	7.5
Skin Diseases ...	—	5	—	14.7	—	—	—	—	—	—	—	—	5	3.1
Infectious or Contagious Disease ...	—	5	—	14.7	—	—	—	—	—	—	—	—	5	3.1
Other Diseases or Defects ...	—	—	—	—	—	2	—	7.1	—	—	—	—	2	1.2
Unvaccinated ...	6	7	27.2	20.5	8	10	42.1	35.7	16	16	55.1	61.5	63	39.8
Mother goes out to work ...	3	6	13.6	17.6	7	7	36.8	25.0	4	4	13.7	15.3	31	19.6
Free from classified Defect, excluding defective Teeth ...	11	14	50.0	41.1	7	7	36.8	25.0	16	3	55.1	11.5	58	36.7
Total number examined	22	34			19	28			29	26			158	

FIELD LANE COUNCIL SCHOOL.

DEFECTS FOUND.	Age 5. 1st Examination				Age 7. 2nd Examination				Totals	
	No. found		ratio %		No. found		ratio %		No.	%
	B	G	B	G	B	G	B	G		
Clothing ...	1	—	2.4	—	5	1	25.0	4.5	7	6.1
Nutrition ...	—	1	—	3.2	2	3	10.0	13.6	6	5.2
Verminous Head ...	1	14	2.4	45.1	—	10	—	45.4	25	21.9
Cleanliness ...	3	1	7.3	3.2	6	4	30.0	18.1	14	12.2
Adenoids ...	—	2	—	6.4	1	2	5.0	9.0	5	4.3
Enlarged Tonsils ...	—	—	—	—	1	3	5.0	13.6	4	3.5
Enlarged Glands ...	2	—	4.8	—	—	4	—	18.1	6	5.2
Teeth, all good ...	13	10	31.7	32.3	4	7	20.0	31.8	34	29.8
„ 1-4 defective ...	19	14	46.3	45.2	12	5	60.0	22.7	50	43.9
„ 4-9 „ ...	7	5	17.1	16.1	3	7	15.0	31.8	22	19.3
„ all „ ...	2	2	4.9	6.4	1	3	5.0	13.7	8	7.0
External Eye Diseases ...	—	—	—	—	1	—	5.0	—	1	0.8
Defective Sight ...	—	—	—	—	1	1	5.0	4.5	2	4.7
Defective Speech ...	1	—	2.4	—	1	—	5.0	—	2	1.7
Ear Disease ...	—	1	—	3.2	2	—	10.0	—	3	2.6
Defective Hearing ...	1	1	2.4	3.2	2	1	10.0	4.5	5	4.3
Mental Condition, Backward ...	—	—	—	—	—	1	—	4.5	1	0.8
Defective ...	—	—	—	—	—	—	—	—	—	—
Disease of Heart ...	—	—	—	—	—	—	—	—	—	—
„ Lungs ...	1	1	2.4	3.2	1	1	5.0	4.5	4	3.5
„ Nervous System ...	—	—	—	—	—	—	—	—	—	—
Tuberculosis										
Pulmonary ...	—	—	—	—	—	—	—	—	—	—
Osseous ...	—	—	—	—	—	—	—	—	—	—
Glandular ...	—	—	—	—	—	—	—	—	—	—
Rickets ...	7	2	17.0	6.4	3	1	15.0	4.5	13	11.4
Deformities ...	8	2	19.5	6.4	3	1	15.0	4.5	14	12.2
Skin Diseases ...	1	2	2.4	6.4	1	—	5.0	—	4	3.5
Infectious or Contagious Disease ...	1	2	2.4	6.4	1	—	5.0	—	4	3.5
Other Diseases or Defects	—	—	—	—	—	—	—	—	—	—
Unvaccinated ...	10	7	24.3	22.5	8	4	40.0	18.1	29	25.4
Mother goes out to work	4	7	9.7	22.5	2	4	10.0	18.1	17	14.9
Free from classified Defect, excluding defective Teeth ...	27	10	65.8	32.2	8	7	40.0	31.8	52	45.6
Total number examined	41	31			20	22			114	

STAINCLIFFE C.E. SCHOOL.

DEFECTS FOUND.	Age 5. 1st Examination				Age 7. 2nd Examination				Age 13. 4th Examination				Totals	
	No found		ratio %		No. found		ratio %		No. found		ratio %		No.	%
	B	G	B	G	B	G	B	G	B	G	B	G		
Clothing ...	—	3	—	12.0	13	6	48.1	24.0	9	5	60.0	62.5	36	30.2
Nutrition ...	—	—	—	—	4	3	14.8	12.0	—	—	—	—	7	5.8
Verminous Head ...	1	8	5.2	32.0	5	15	18.5	60.0	—	4	—	50.0	33	27.7
Cleanliness ...	2	3	10.5	12.0	7	5	25.9	20.0	9	3	60.0	37.5	29	24.3
Adenoids ...	2	1	10.5	4.0	1	—	3.7	—	—	1	—	12.5	5	4.2
Enlarged Tonsils ...	2	1	10.5	4.0	2	3	7.4	12.0	—	1	—	12.5	9	7.5
Enlarged Glands ...	—	2	—	8.0	2	2	7.4	8.0	—	—	—	—	6	5.0
Teeth, all good ...	5	4	26.3	16.0	4	5	14.8	20.0	6	—	40.0	—	24	20.2
„ 1-4 defective ...	7	14	36.9	56.0	14	12	51.9	48.0	5	6	33.3	75.0	58	48.7
„ 4-9 „ ...	7	5	36.8	20.0	7	7	25.9	28.0	4	2	26.6	25.0	32	26.9
„ all „ ...	—	2	—	8.0	2	1	7.4	4.0	—	—	—	—	5	4.2
External Eye Diseases ...	1	1	5.2	4.0	2	1	7.4	4.0	—	—	—	—	5	4.2
Defective Sight ...	—	—	—	—	9	5	33.3	20.0	2	1	13.3	12.5	17	22.6
Defective Speech ...	—	—	—	—	1	—	3.7	—	—	—	—	—	1	0.8
Ear Disease ...	—	—	—	—	—	1	—	4.0	—	—	—	—	1	0.8
Defective Hearing ...	—	—	—	—	1	1	3.7	4.0	1	—	6.6	—	3	2.5
Mental Condition, Backward ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Defective ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Disease of Heart ...	—	1	—	4.0	—	—	—	—	—	—	—	—	1	0.8
„ Lungs ...	—	2	—	8.0	1	—	3.7	—	1	—	6.6	—	4	3.3
„ Nervous System ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Osseous ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Glandular ...	—	—	—	—	1	1	3.7	4.0	—	—	—	—	2	1.6
Rickets ...	3	4	15.7	16.0	5	2	18.5	8.0	2	—	13.3	—	16	13.4
Deformities ...	3	4	15.7	16.0	5	2	18.5	8.0	2	—	13.3	—	16	13.4
Skin Diseases ...	3	2	15.7	8.0	—	—	—	—	—	—	—	—	5	4.2
Infectious or Contagious Disease ...	3	1	15.7	4.0	—	—	—	—	—	—	—	—	4	3.3
Other Diseases or Defects	—	—	—	—	—	—	—	—	1	—	6.6	—	1	0.8
Unvaccinated ...	7	2	36.8	8.0	5	16	18.5	64.0	9	4	60.0	50.0	43	36.1
Mother goes out to work	3	2	15.7	8.0	5	4	18.5	16.0	4	1	26.6	12.5	19	15.9
Free from classified Defect, excluding defective Teeth ...	11	8	57.8	32.0	7	4	25.9	16.0	4	2	26.6	25.0	36	30.2
Total number examined	19	25			27	25			15	8			119	

HEALEY COUNCIL SCHOOL.

DEFECTS FOUND.	Age 5. 1st Examination				Age 7. 2nd Examination				Age 13. 4th Examination				Totals	
	No. found.		ratio %		No. found		ratio %		No. found		ratio %		No.	%
	B	G	B	G	B	G	B	G	B	G	B	G		
Clothing ...	5	6	26.3	21.4	9	8	33.3	22.8	5	5	38.4	38.4	38	28.1
Nutrition ...	—	—	—	—	1	1	3.7	2.8	—	—	—	—	2	1.4
Verminous Head ...	1	13	5.2	46.4	1	19	3.7	54.2	—	5	—	38.4	39	28.8
Cleanliness ...	5	5	26.3	17.8	8	6	29.6	17.1	5	3	38.4	23.0	32	23.7
Adenoids ...	—	2	—	7.1	—	3	—	8.5	—	2	—	15.3	7	5.1
Enlarged Tonsils ...	1	2	5.2	7.1	3	2	11.1	5.7	—	4	—	30.7	12	8.8
Enlarged Glands ...	—	—	—	—	2	2	7.4	5.7	—	—	—	—	4	2.9
Teeth, all good ...	7	5	36.8	17.8	3	5	11.1	14.3	1	2	7.7	15.4	23	17.0
„ 1-4 defective ...	3	18	15.8	64.3	15	12	55.6	34.3	9	4	69.2	30.8	61	45.2
„ 4-9 „ ...	8	4	42.1	14.3	7	12	25.9	34.3	2	7	15.4	53.8	40	29.6
„ all „ ...	1	1	5.3	3.6	2	6	7.4	17.1	1	—	7.7	—	11	8.2
External Eye Diseases ...	—	1	—	3.5	1	2	3.7	5.7	—	—	—	—	4	2.9
Defective Sight ...	—	—	—	—	2	3	7.4	8.5	2	1	15.3	7.6	8	9.0
Defective Speech ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ear Disease ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Defective Hearing ...	—	—	—	—	—	—	—	—	—	2	—	15.3	2	1.4
Mental Condition, Backward ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Defective ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Disease of Heart ...	—	—	—	—	—	—	—	—	1	2	7.6	15.3	3	2.2
„ Lungs ...	3	4	15.7	14.2	2	2	7.4	5.7	—	—	—	—	11	8.1
„ Nervous System ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Osseous ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Glandular ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rickets ...	1	3	5.2	10.7	1	—	3.7	—	—	—	—	—	5	3.7
Deformities ...	1	4	5.2	14.2	1	—	3.7	—	—	—	—	—	6	4.4
Skin Diseases ...	1	—	5.2	—	—	—	—	—	—	—	—	—	1	0.7
Infectious or Contagious Disease ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases or Defects	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unvaccinated ...	9	8	47.3	28.5	13	10	48.1	28.5	7	7	53.8	53.8	54	40.0
Mother goes out to work	2	1	10.5	3.5	2	6	7.4	17.1	1	3	7.6	23.0	15	11.1
Free from classified Defect, excluding defective Teeth ...	9	9	47.3	32.1	14	13	51.8	37.1	6	3	46.1	23.0	54	40.0
Total number examined	19	28			27	35			13	13			135	

CARLINGHOW COUNCIL SCHOOL.

DEFECTS FOUND.	Age 5. 1st Examination				Age 7. 2nd Examination				Age 13. 4th Examination				Totals	
	No. found.		ratio %		No. found		ratio %		No. found		ratio %		No.	%
	B	G	B	G	B	G	B	G	B	G	B	G		
Clothing ...	5	4	9.6	9.7	2	5	11.7	16.1	3	7	9.6	31.8	26	13.4
Nutrition ...	4	3	7.6	7.3	1	3	5.8	9.6	—	—	—	—	11	5.6
Vermineous Head ...	1	19	1.9	46.3	1	10	5.8	32.2	1	16	3.2	72.7	48	24.7
Cleanliness ...	6	7	11.5	17.0	3	7	17.6	22.5	3	9	9.6	40.9	35	18.0
Adenoids ...	—	1	—	2.4	—	—	—	—	—	1	—	4.5	2	1.0
Enlarged Tonsils ...	5	1	9.6	2.4	—	1	—	3.2	2	1	6.4	4.5	10	5.1
Enlarged Glands ...	1	1	1.9	2.4	1	2	5.8	6.4	1	1	3.2	4.5	7	3.6
Teeth, all good ...	6	9	11.5	21.9	—	13	—	41.9	3	1	9.7	4.5	32	16.5
„ 1-4 defective ...	34	13	65.4	31.7	12	6	70.6	19.4	21	17	67.7	77.3	103	53.1
„ 4-9 „ ...	7	15	13.5	36.6	3	9	17.6	29.0	7	4	22.6	18.2	45	23.2
„ all „ ...	5	4	9.6	9.8	2	3	11.8	9.7	—	—	—	—	14	7.2
External Eye Diseases ...	2	1	3.8	2.4	—	1	—	3.2	1	—	3.2	—	5	2.5
Defective Sight ...	—	—	—	—	2	4	11.7	12.9	4	2	12.9	9.0	12	11.8
Defective Speech ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ear Disease ...	1	—	1.9	—	—	—	—	—	—	1	—	4.5	2	1.0
Defective Hearing ...	1	—	1.9	—	—	—	—	—	—	1	—	4.5	2	1.0
Mental Condition, Backward ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Defective ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Disease of Heart ...	—	—	—	—	—	—	—	—	2	1	6.4	4.5	3	1.5
„ Lungs ...	1	2	1.9	4.8	2	—	11.7	—	1	—	3.2	—	6	3.1
„ Nervous System ...	—	—	—	—	—	1	—	3.2	—	—	—	—	1	0.5
Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Osseous ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Glandular ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rickets ...	9	2	17.3	4.8	5	3	29.4	9.6	1	—	3.2	—	20	10.3
Deformities ...	9	2	17.3	4.8	5	3	29.4	9.6	1	1	3.2	4.5	21	10.8
Skin Diseases ...	—	1	—	2.4	1	1	5.8	3.2	—	—	—	—	3	1.5
Infectious or Contagious Disease ...	—	1	—	2.4	1	—	5.8	—	—	—	—	—	2	1.0
Other Diseases or Defects	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unvaccinated ...	12	12	23.0	29.2	8	8	47.0	25.8	13	11	41.9	50.0	64	32.9
Mother goes out to work	5	2	9.6	4.8	1	3	5.8	9.6	4	2	12.9	9.0	17	8.7
Free from classified Defect, excluding defective Teeth ...	30	16	57.6	39.0	7	14	41.1	45.1	20	4	64.5	18.1	91	46.9
Total number examined	52	41			17	31			31	22			194	

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ST. MARY'S R.C. SCHOOL.

DEFECTS FOUND.	Age 5. 1st Examination				Age 7. 2nd Examination				Age 13. 4th Examination				Totals	
	No. found		ratio %		No. found		ratio %		No. found		ratio %		No.	%
	B	G	B	G	B	G	B	G	B	G	B	G		
Clothing ...	14	11	50.0	31.4	18	13	69.2	59.0	8	1	53.3	9.0	65	47.4
Nutrition ...	—	—	—	—	8	7	30.7	31.8	—	—	—	—	15	10.9
Verminous Head ...	—	25	—	71.4	2	19	7.6	86.3	1	10	6.6	90.9	57	41.6
Cleanliness ...	13	11	46.4	31.4	19	17	73.0	77.2	7	3	46.6	27.2	70	51.0
Adenoids ...	1	1	3.5	2.8	—	—	—	—	—	—	—	—	2	1.4
Enlarged Tonsils ...	—	—	—	—	1	—	3.8	—	2	—	13.3	—	3	2.1
Enlarged Glands ...	—	1	—	2.8	—	—	—	—	—	1	—	9.0	2	1.4
Teeth, all good ...	10	9	35.7	25.7	5	2	19.3	9.1	3	3	20.0	27.3	32	23.4
„ 1-4 defective ...	16	16	57.1	45.7	11	15	42.3	68.2	7	6	46.6	54.5	71	51.8
„ 4-9 „ ...	2	8	7.2	22.9	7	4	26.9	18.2	5	1	33.4	9.1	27	19.7
„ all „ ...	—	2	—	5.7	3	1	11.5	4.5	—	1	—	9.1	7	5.1
External Eye Diseases ...	1	3	3.5	8.5	2	1	7.6	4.5	—	—	—	—	7	5.1
Defective Sight ...	—	—	—	—	6	9	23.0	40.9	4	3	26.6	27.2	22	29.7
Defective Speech ...	—	—	—	—	2	—	7.6	—	1	—	6.6	—	3	2.1
Ear Disease ...	1	1	3.5	2.8	1	—	3.8	—	1	—	6.6	—	4	2.9
Defective Hearing ...	—	1	—	2.8	1	—	3.8	—	—	—	—	—	2	1.4
Mental Condition, Backward ...	—	—	—	—	1	—	3.8	—	—	—	—	—	1	0.7
Defective ...	—	—	—	—	1	—	3.8	—	—	—	—	—	1	0.7
Disease of Heart ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
„ Lungs ...	1	1	3.5	2.8	1	—	3.8	—	—	—	—	—	3	2.1
„ Nervous System ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Osseous ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Glandular ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rickets ...	2	1	7.1	2.8	3	2	11.5	9.0	1	1	6.6	9.0	10	7.3
Deformities ...	4	1	14.2	2.8	3	2	11.5	9.0	1	1	6.6	9.0	12	8.7
Skin Diseases ...	1	—	3.5	—	—	—	—	—	1	—	6.6	—	2	1.4
Infectious or Contagious Disease ...	1	—	3.5	—	—	—	—	—	1	—	6.6	—	2	1.4
Other Diseases or Defects	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unvaccinated ...	9	6	32.1	17.1	10	7	38.4	31.8	11	8	73.3	72.7	51	37.2
Mother goes out to work	12	14	42.8	40.0	12	12	46.1	54.5	6	3	40.0	27.2	59	43.0
Free from classified Defect, excluding defective Teeth ...	11	4	39.2	11.4	2	1	7.6	4.5	4	1	26.6	9.1	23	16.7
Total number examined	28	35			26	22			15	11			137	

PURLWELL COUNCIL SCHOOL.

DEFECTS FOUND.	Age 5. 1st Examination				Age 7. 2nd Examination				Age 13. 4th Examination				Totals	
	No. found		ratio %		No. found		ratio %		No. found		ratio %		No.	%
	B	G	B	G	B	G	B	G	B	G	B	G		
Clothing ...	3	6	9.0	18.1	6	6	13.3	16.6	3	2	18.7	8.3	26	13.9
Nutrition ...	—	1	—	3.0	2	2	4.4	5.5	—	3	—	12.5	8	4.2
Verminous Head ...	—	7	—	21.1	3	14	6.6	38.8	—	15	—	62.5	39	20.8
Cleanliness ...	2	5	6.0	15.1	10	8	22.2	22.2	2	7	12.5	29.1	34	18.1
Adenoids ...	1	4	3.0	12.1	—	—	—	—	—	—	—	—	5	2.6
Enlarged Tonsils ...	1	—	3.0	—	2	3	4.4	8.3	—	2	—	8.3	8	4.2
Enlarged Glands ...	—	—	—	—	1	—	2.2	—	—	2	—	8.3	3	1.6
Teeth, all good ...	9	4	27.3	12.1	8	8	17.8	22.2	2	1	12.5	4.2	32	17.1
„ 1-4 defective ...	18	22	54.5	66.7	19	14	42.2	38.9	14	14	87.5	58.3	101	54.0
„ 4-9 „ ...	5	3	15.2	9.1	16	13	35.6	36.1	—	7	—	29.2	44	23.5
„ all „ ...	1	4	3.0	12.1	2	1	4.4	2.8	—	2	—	8.3	10	5.4
External Eye Diseases ...	2	1	6.0	3.0	—	4	—	11.1	—	—	—	—	7	3.7
Defective Sight ...	—	—	—	—	4	1	8.8	2.7	4	3	25.0	12.5	12	9.9
Defective Speech ...	—	—	—	—	1	—	2.2	—	—	—	—	—	1	0.5
Ear Disease ...	—	2	—	6.0	—	2	—	5.5	—	—	—	—	4	2.1
Defective Hearing ...	—	—	—	—	—	1	—	2.7	—	—	—	—	1	0.5
Mental Condition, Backward ...	—	—	—	—	1	—	2.2	—	—	—	—	—	1	0.5
Defective ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Disease of Heart ...	—	—	—	—	1	1	2.2	2.7	—	—	—	—	2	1.0
„ Lungs ...	1	—	3.0	—	3	—	6.6	—	1	—	6.2	—	5	2.6
„ Nervous System ...	1	—	3.0	—	—	—	—	—	—	—	—	—	1	0.5
Tuberculosis, Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Osseous ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Glandular ...	—	—	—	—	—	1	—	2.7	—	—	—	—	1	0.5
Rickets ...	1	2	3.0	6.0	8	2	17.7	5.5	1	—	6.2	—	14	7.4
Deformities ...	1	1	3.0	3.0	8	4	17.7	11.1	1	—	6.2	—	15	8.0
Skin Diseases ...	—	1	—	3.0	—	—	—	—	—	—	—	—	1	0.5
Infectious or Contagious Disease ...	—	1	—	3.0	—	—	—	—	—	—	—	—	1	0.5
Other Diseases or Defects ...	—	—	—	—	1	—	2.2	—	—	—	—	—	1	0.5
Unvaccinated ...	7	6	21.1	18.1	9	11	20.0	30.5	10	9	62.5	37.5	52	27.8
Mother goes out to work ...	1	3	3.0	9.0	3	7	6.6	19.4	—	—	—	—	14	7.4
Free from classified Defect, excluding defective Teeth ...	23	18	69.7	54.5	15	14	33.3	38.8	7	4	43.7	16.6	81	43.3
Total number examined	33	33			45	36			16	24			187	

HANGING HEATON C.E. SCHOOL.

DEFECTS FOUND.	Age 5. 1st Examination				Age 7. 2nd Examination				Age 13. 4th Examination				Totals	
	No. found.		ratio %		No. found		ratio %		No. found		ratio %		No.	%
	B	G	B	G	B	G	B	G	B	G	B	G		
Clothing ...	2	1	25.0	14.2	4	1	36.3	16.6	3	3	27.2	42.8	14	28.0
Nutrition ...	—	—	—	—	2	—	18.1	—	—	1	—	14.2	3	6.0
Verminous Head ...	—	2	—	28.5	—	1	—	16.6	—	5	—	71.4	8	16.0
Cleanliness ...	2	1	25.0	14.2	5	1	45.4	16.6	4	3	36.3	42.8	16	32.0
Adenoids ...	—	—	—	—	1	1	9.0	16.6	—	1	—	14.2	3	6.0
Enlarged Tonsils ...	—	—	—	—	—	—	—	—	2	2	18.1	28.5	4	8.0
Enlarged Glands ...	3	2	37.5	28.5	1	—	9.1	—	—	—	—	—	6	12.0
Teeth, all good ...	5	6	62.5	85.7	1	—	9.1	—	2	1	18.2	14.3	15	30.0
„ 1-4 defective ...	2	1	25.0	14.3	5	5	45.5	83.3	8	3	72.7	42.9	24	48.0
„ 4-9 „ ...	—	—	—	—	5	1	45.4	16.7	1	3	9.1	42.8	10	20.0
„ all „ ...	1	—	12.5	—	—	—	—	—	—	—	—	—	1	2.0
External Eye Diseases ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Defective Sight ...	—	—	—	—	2	2	18.1	33.3	—	2	—	28.5	6	17.1
Defective Speech ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ear Disease ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Defective Hearing ...	—	—	—	—	1	—	9.0	—	—	—	—	—	1	2.0
Mental Condition, Backward ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Defective ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Disease of Heart ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
„ Lungs ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
„ Nervous System ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Osseous ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Glandular ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rickets ...	—	—	—	—	—	1	—	16.6	—	—	—	—	1	2.0
Deformities ...	—	—	—	—	—	1	—	16.6	—	—	—	—	1	2.0
Skin Diseases ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Infectious or Contagious Disease ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases or Defects	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unvaccinated ...	1	2	12.5	28.5	2	1	18.1	16.6	4	4	36.3	57.1	14	28.0
Mother goes out to work	1	—	12.5	—	2	—	18.1	—	1	1	9.0	14.2	5	10.0
Free from classified Defect, excluding defective Teeth ...	4	3	50.0	42.8	5	2	45.4	33.3	4	—	36.3	—	18	36.0
Total number examined	8	7			11	6			11	7			50	

GREGORY STREET COUNCIL SCHOOL.

DEFECTS FOUND.	Age 5. 1st Examination				Age 7. 2nd Examination				Age 13. 4th Examination				Totals	
	No. found		ratio %		No. found		ratio %		No. found		ratio %		No.	%
	B	G	B	G	B	G	B	G	B	G	B	G		
Clothing ...	4	3	23.5	14.2	2	—	15.3	—	1	—	14.2	—	10	14.0
Nutrition ...	—	—	—	—	2	2	15.3	15.3	—	—	—	—	4	5.6
Verminous Head ...	—	1	—	4.7	3	4	23.0	30.7	6	—	85.7	—	14	19.7
Cleanliness ...	4	3	23.5	14.2	3	—	23.0	—	1	—	14.2	—	11	15.4
Adenoids ...	—	1	—	4.7	—	1	—	7.6	—	—	—	—	2	2.8
Enlarged Tonsils ...	—	3	—	14.2	—	1	—	7.6	1	—	14.2	—	5	7.0
Enlarged Glands ...	—	—	—	—	—	1	—	7.6	—	—	—	—	1	1.4
Teeth, all good ...	8	12	47.0	57.1	2	1	15.4	7.7	—	—	—	—	23	32.4
„ 1-4 defective ...	6	4	35.3	19.1	6	7	46.1	53.8	4	—	57.1	—	27	38.0
„ 4-9 „ ...	2	5	11.8	23.8	5	5	38.5	38.5	3	—	42.9	—	20	28.2
„ all „ ...	1	—	5.9	—	—	—	—	—	—	—	—	—	1	1.4
External Eye Diseases ...	—	1	—	4.7	2	1	15.3	7.6	—	—	—	—	4	5.6
Defective Sight ...	—	—	—	—	2	—	15.3	—	2	—	28.5	—	4	12.1
Defective Speech ...	1	—	5.8	—	—	—	—	—	—	—	—	—	1	1.4
Ear Disease ...	—	—	—	—	—	1	—	7.6	—	—	—	—	1	1.4
Defective Hearing ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mental Condition, Backward ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Defective ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Disease of Heart ...	—	—	—	—	—	—	—	—	1	—	14.2	—	1	1.4
„ Lungs ...	—	—	—	—	1	3	7.6	23.0	—	—	—	—	4	5.6
„ Nervous System ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis, Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Osseous ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Glandular ...	1	—	5.8	—	—	—	—	—	1	—	14.2	—	2	2.8
Rickets ...	2	—	11.7	—	2	2	15.3	15.3	—	—	—	—	6	8.4
Deformities ...	3	—	17.6	—	2	2	15.3	15.3	—	—	—	—	7	9.8
Skin Diseases ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Infectious or Contagious Disease ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases or Defects ...	1	—	5.8	—	—	—	—	—	—	—	—	—	1	1.4
Unvaccinated ...	8	5	47.0	23.8	1	3	7.6	23.0	3	—	42.8	—	20	28.1
Mother goes out to work ...	1	3	5.8	14.2	2	1	15.3	7.6	1	—	14.2	—	8	11.2
Free from classified Defect, excluding defective Teeth ...	9	13	52.9	61.9	4	5	30.7	38.4	—	—	—	—	31	43.6
Total number examined	17	21			13	13			7				71	

MILL LANE COUNCIL SCHOOL.

DEFECTS FOUND.	Age 5. 1st Examination				Age 7. 2nd Examination				Age 13. 4th Examination				Totals	
	No. found		ratio %		No. found		ratio %		No. found		ratio %		No.	%
	B	G	B	G	B	G	B	G	B	G	B	G		
Clothing ...	9	5	39.0	45.4	7	3	31.8	9.0	2	2	10.5	20.0	28	23.7
Nutrition ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Verminous Head ...	—	5	—	45.4	—	18	—	54.5	—	6	—	60.0	29	24.5
Cleanliness ...	9	5	39.0	45.4	7	3	31.8	9.0	2	3	10.5	30.0	29	24.5
Adenoids ...	—	—	—	—	1	1	4.5	3.0	1	—	5.2	—	3	2.5
Enlarged Tonsils ...	—	1	—	9.0	2	3	9.0	9.0	1	—	5.2	—	7	5.9
Enlarged Glands ...	1	—	4.3	—	—	1	—	3.0	1	1	5.2	10.0	4	3.3
Teeth, all good ...	8	5	34.8	45.5	5	6	22.7	18.2	2	2	10.5	20.0	28	23.7
„ 1-4 defective ...	8	5	34.8	45.4	12	12	54.6	36.4	16	8	84.2	80.0	61	51.7
„ 4-9 „ ...	5	1	21.7	9.1	5	13	22.7	39.4	1	—	5.3	—	25	21.2
„ all „ ...	2	—	8.7	—	—	2	—	6.0	—	—	—	—	4	3.4
External Eye Diseases ...	—	—	—	—	1	—	4.5	—	—	—	—	—	1	0.8
Defective Sight ...	—	—	—	—	4	5	18.1	15.1	6	1	31.5	10.0	16	19.0
Defective Speech ...	—	—	—	—	—	—	—	—	1	—	5.2	—	1	0.8
Ear Disease ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Defective Hearing ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mental Condition, Backward ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Defective ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Disease of Heart ...	—	—	—	—	—	1	—	3.0	—	—	—	—	1	0.8
„ Lungs ...	2	—	8.6	—	—	3	—	9.0	1	—	5.2	—	6	5.0
„ Nervous System ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Osseous ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Glandular ...	—	—	—	—	1	—	4.5	—	1	—	5.2	—	2	1.6
Rickets ...	3	—	13.0	—	2	1	9.0	3.0	—	—	—	—	6	5.0
Deformities ...	3	—	13.0	—	2	3	9.0	9.0	—	1	—	10.0	9	7.6
Skin Diseases ...	—	—	—	—	—	1	—	3.0	—	—	—	—	1	0.8
Infectious or Contagious Disease ...	—	—	—	—	—	1	—	3.0	—	—	—	—	1	0.8
Other Diseases or Defects	—	—	—	—	—	—	—	—	1	—	5.2	—	1	0.8
Unvaccinated ...	8	2	34.7	18.1	8	12	36.3	36.3	4	2	21.0	20.0	36	30.5
Mother goes out to work	3	3	13.0	27.2	2	1	9.0	3.0	2	3	10.5	30.0	14	11.8
Free from classified Defect, excluding defective Teeth ...	12	4	52.1	36.3	10	8	45.4	24.2	10	3	52.6	30.0	47	39.8
Total number examined	23	11			22	33			19	10			118	

BATLEY C.E. SCHOOL.

DEFECTS FOUND.	Age 5. 1st Examination				Age 7. 2nd Examination				Age 13. 4th Examination				Totals	
	No. found		ratio %		No. found		ratio %		No. found		ratio %		No.	%
	B	G	B	G	B	G	B	G	B	G	B	G		
Clothing ...	8	8	29.6	44.4	9	15	42.8	55.5	1	1	6.6	7.6	42	34.7
Nutrition ...	1	1	3.7	5.5	2	3	9.5	11.1	—	—	—	—	7	5.7
Verminous Head ...	—	4	—	22.2	—	5	—	18.5	—	4	—	30.7	13	10.7
Cleanliness ...	8	8	29.6	44.4	9	12	42.8	44.4	1	1	6.6	7.6	39	32.2
Adenoids ...	—	1	—	5.5	2	1	9.5	3.7	—	—	—	—	4	3.3
Enlarged Tonsils ...	—	—	—	—	2	2	9.5	7.4	1	—	6.6	—	5	4.1
Enlarged Glands ...	—	—	—	—	1	1	4.7	3.7	—	—	—	—	2	1.6
Teeth, all good ...	10	4	37.0	22.2	6	7	28.6	25.9	1	2	6.6	15.4	30	24.8
„ 1-4 defective ...	13	9	48.2	50.0	9	8	42.9	29.6	10	10	66.7	76.9	59	48.8
„ 4-9 „ ...	3	3	11.1	16.7	5	9	23.8	33.4	2	1	13.4	7.7	23	19.0
„ all „ ...	1	2	3.7	11.1	1	3	4.7	11.1	2	—	13.3	—	9	7.4
External Eye Diseases ...	—	1	—	5.5	2	1	9.5	3.7	—	—	—	—	4	3.3
Defective Sight ...	—	—	—	—	2	4	9.5	14.8	1	1	6.6	7.6	8	10.5
Defective Speech ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ear Disease ...	—	1	—	5.5	—	—	—	—	1	—	6.6	—	2	1.6
Defective Hearing ...	1	—	3.7	—	1	—	4.7	—	—	—	—	—	2	1.6
Mental Condition, Backward ...	—	—	—	—	1	—	4.7	—	—	—	—	—	1	0.8
Defective ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Disease of Heart ...	—	—	—	—	—	1	—	3.7	—	1	—	7.6	2	1.6
„ Lungs ...	—	—	—	—	—	1	—	3.7	—	—	—	—	1	0.8
„ Nervous System ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculosis Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Osseous ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Glandular ...	—	—	—	—	—	—	—	—	—	1	—	7.6	1	0.8
Rickets ...	—	2	—	11.1	2	—	9.5	—	—	—	—	—	4	3.3
Deformities ...	1	3	3.7	16.6	2	—	9.5	—	—	—	—	—	6	4.9
Skin Diseases ...	—	1	—	5.5	—	—	—	—	—	—	—	—	1	0.8
Infectious or Contagious Disease ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases or Defects ...	1	—	3.7	—	—	—	—	—	—	—	—	—	1	0.8
Unvaccinated ...	6	3	22.2	16.6	15	5	71.4	18.5	4	6	26.6	46.1	39	32.2
Mother goes out to work ...	—	3	—	16.6	1	4	4.7	14.8	1	1	6.6	7.6	10	8.2
Free from classified Defect, excluding defective Teeth ...	14	6	51.8	33.3	6	6	28.5	22.2	11	7	73.3	53.8	50	41.3
Total number examined	27	18			21	27			15	13			121	

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PARK ROAD COUNCIL SCHOOL.

DEFECTS FOUND.	Age 5. 1st Examination				Age 7. 2nd Examination				Age 13. 4th Examination				Totals	
	No found		ratio %		No. found		ratio %		No. found		ratio %		No.	%
	B	G	B	G	B	G	B	G	B	G	B	G		
Clothing ...	10	12	35.7	31.5	9	8	30.0	28.5	3	16	9.0	44.4	58	30.0
Nutrition ...	—	—	—	—	4	6	13.3	21.4	—	—	—	—	10	5.1
Verminous Head ...	1	9	3.5	23.6	—	14	—	50.0	—	24	—	66.6	48	24.8
Cleanliness ...	11	11	39.2	28.9	8	10	26.6	35.7	4	14	12.1	38.8	58	30.0
Adenoids ...	—	—	—	—	2	2	6.6	7.1	2	3	6.0	8.3	9	4.6
Enlarged Tonsils ...	1	—	3.5	—	6	—	20.0	—	2	8	6.0	22.2	17	8.8
Enlarged Glands ...	—	1	—	2.6	2	—	6.6	—	—	—	—	—	3	1.5
Teeth, all good ...	12	15	42.9	39.5	6	7	20.0	25.0	8	10	24.3	27.8	58	30.0
„ 1-4 defective ...	13	13	46.4	34.2	14	11	46.7	39.3	20	17	60.6	47.2	88	45.6
„ 4-9 „ ...	1	8	3.5	21.1	5	8	16.7	28.5	5	9	15.1	25.0	36	18.7
„ all „ ...	2	2	7.2	5.2	5	2	16.6	7.2	—	—	—	—	11	5.7
External Eye Diseases ...	3	2	10.7	5.2	1	—	3.3	—	2	1	6.0	2.7	9	4.6
Defective Sight ...	—	—	—	—	5	—	16.6	—	5	5	15.1	13.8	15	11.8
Defective Speech ...	1	—	3.5	—	—	1	—	3.5	1	—	3.0	—	3	1.5
Ear Disease ...	—	—	—	—	—	1	—	3.5	2	—	6.0	—	3	1.5
Defective Hearing ...	—	—	—	—	—	1	—	3.5	2	1	6.0	2.7	4	2.0
Mental Condition, Backward ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Defective ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Disease of Heart ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
„ Lungs ...	1	2	3.5	5.2	—	1	—	3.5	—	1	—	2.7	5	2.5
„ Nervous System ...	—	—	—	—	—	1	—	3.5	—	—	—	—	1	0.5
Tuberculosis, Pulmonary ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Osseous ...	—	—	—	—	—	—	—	—	1	—	3.0	—	1	0.5
Glandular ...	—	—	—	—	1	1	6.6	3.5	—	—	—	—	2	1.0
Rickets ...	3	2	10.7	5.2	3	3	10.0	10.7	4	1	12.1	2.7	16	8.2
Deformities ...	4	2	14.2	5.2	3	3	10.0	10.7	4	1	12.1	2.7	17	8.8
Skin Diseases ...	1	—	3.5	—	—	—	—	—	—	1	—	2.7	2	1.0
Infectious or Contagious Disease ...	—	—	—	—	—	—	—	—	—	1	—	2.7	1	0.5
Other Diseases or Defects ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unvaccinated ...	9	9	32.1	23.6	8	12	26.6	42.9	21	23	63.6	63.8	82	42.4
Mother goes out to work ...	6	6	21.4	15.7	4	1	13.3	3.5	7	8	21.1	22.2	32	16.5
Free from classified Defect, excluding defective Teeth ...	12	18	42.8	47.3	11	9	36.6	32.1	17	6	51.5	16.6	73	37.8
Total number examined	28	38			30	28			33	36			193	

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